

مكذبات الاطراف

FINANCIAL TIMES

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NEWS SUMMARY

GENERAL

Key U.S. bases in Turkey inactive

The four most vital American bases in Turkey ceased operations on the instructions of the Pentagon, following Turkey's abrogation of her military treaties with the U.S. The bases housed radar communications and intelligence gathering facilities directed at ship and troop movements in the Middle East and the Soviet mainland.

The Americans are also unable to make use of the big airbase at Incirlik in South-Eastern Turkey, where they kept nuclear weapons-carrying Phantom fighters. The base will now be used exclusively for Nato purposes.

Following a U.S. Congressional ban on arms sales, Ankara has said that the 27 U.S. bases, where more than 6,000 troops are stationed, must come under the command of the Turkish armed forces.

Back page; editorial comment, page 10.

BUSINESS

Seasonal 4.57 fall in Grocery Index

FT GROCERY Prices Index fell 4.57 points in July, its first drop this year. After seasonal factors exaggerated the rise in early summer, the index now shows a bigger fall than in previous years and stands at 188.45, which is still 28 per cent. above last July's level.

Back page.

Soares appeals to President

Portuguese Socialist Party leader Dr. Mario Soares last night called on President Costa Gomes to disassociate himself from the new three-man triumvirate, of which he is a member, and to put himself at the head of a "Government of National Salvation."

Back page.

Tory argument over Prentice

Tory MPs have criticised the statement of senior officers of the Newham NE Conservative Association that they would not want to oppose Mr. Reg Prentice, Minister for Overseas Development, if he fought the next General Election as an independent.

Page 4.

RAF rescue

Britain closed her consulate general in Luanda, Angola, and an RAF VC10 flew seven diplomats and 20 other British citizens out of the war-torn former Portuguese West African colony. None of the other consulates in Luanda has closed.

Page 5.

Strains at OAU

The 12th summit of the Organisation of African Unity opens in Uganda today amid bitter controversy over the nationalist strife in Angola and the future of detente in Southern Africa. Tanzania is boycotting the summit in protest against the "massacres, oppression and torture" used by the host country.

Page 5.

Press ballot

Moderates in the National Union of Journalists scored a victory when a special conference decided that the union's policy on the controversial questions of the closed shop and the role of newspaper editors should be decided by a ballot of its 28,000 members.

Back page.

Plea to Varley

Left-wing Labour MPs are to protest to Industry Secretary Mr. Eric Varley over news that the British Steel Corporation is to invest in a £20m chrome plant in the Transvaal.

More tremors

Mysterious earth tremors at Trent Vale, Stoke-on-Trent, forced a local family to leave their home. The latest tremor occurred during a visit by local MP, Mr. Jack Ashley.

Briefly...

China announced that it successfully launched its third earth satellite on Saturday and that it circled the earth every 91 minutes.

Six Benigno Zaccagnini, 63, replaces Sir Amintore Fanfani as secretary of Italy's Christian Democrats. Page 5.

Four changes have been made in the English test team to meet Australia at Lords on Thursday: Wood, Steele, Lever and Edmonds replace Denness, Fletcher, Arnold and Hendrick. Page 2.

Ford gives pledge of co-operation on economic policy

BY NICHOLAS COLCHESTER: BONN, July 27.

President Ford and Chancellor Helmut Schmidt of West Germany have agreed that it is "vitally important" that the economic policies of Germany and the European Community be integrated with those of the U.S., the American President announced here to-day.

The statement suggested that the week-end's double summit in Bonn could be a turning point for Western economic co-operation at a time of overall economic slump and in face of the new strength of the suppliers of oil and raw material.

The German Government spokesman, Herr Klaus Bolling, stressed that President Ford had given Herr Schmidt an assurance that the U.S. would bring consideration of Europe's economic position into America's economic planning.

The German Chancellor had said that Germany would be ready "day and night" to involve itself in America's economic decision-making by sending teams of its own economic officials to Washington. President Ford had agreed with Herr Schmidt's basic point that there must be "concrete co-operation" to ensure that economic problems did not lead to dangers for Western democracy.

In his talks with President Valery Giscard d'Estaing of France and with President Ford, Herr Schmidt has made some progress in pursuit of his favourite cause.

First the two European leaders invited the other countries of the "core" states—Belgium, Holland, Luxembourg and Denmark—to mark a Franco-German programme of co-ordinated economic stimulus.

Then the American President came out with his strongly worded pledge of economic co-operation.

The question here to-night is the extent to which the U.S. President means what he says. It has not been lost on observers here that these top-level pledges of economic co-operation have come at a time when all the countries involved have a common need to accelerate the pace of their business activity.

By themselves the statements made this week-end do not provide any guarantee that the co-operative spirit will hold under more diverse circumstances.

The Chancellor now hopes that substance can be added to good intentions at the Security Conference summit meeting in Helsinki later this week.

On Thursday the British Government is acting as host to a meeting between the U.S., France, West Germany and Britain. Herr Schmidt will be using the time between now and then to develop suggestions for the "concrete co-operation."

According to the German Government spokesman Herr Schmidt hopes that the conversation at this meeting will move beyond economic analysis towards creating some system for the crisis management of world economies—not as an institution but as a working arrangement.

President Ford will also be in a position to inform the Japanese Government of the week-end's discussions when Prime Minister Miki visits Washington early next month.

The U.S. President brought the German Chancellor up to date on the prospects of economic recovery in the U.S. "We are making a turn towards a healthier economy," he told.

Herr Schmidt, who has looked upon the reported improvement in the business atmosphere in the U.S. with some scepticism, said afterwards that President Ford's latest news had "brightened the sky over future developments."

The meeting on Friday night Continued on Back Page Helsinki summit Page 27

Drop in rights issues expected

BY STEWART FLEMING

STOCKBROKERS involved in raising over £850m. for companies through rights issues this year now expect a drop in new fund-raising operations as a result of the decline in share prices and in the level of activity on the Stock Exchange in recent weeks.

Although it is believed that dates for further rights issues have been booked in the queue organised by the Government broker as far ahead as late September, brokers are already reporting that some companies which had been expected to announce issues in the next two weeks have decided to drop out of the queue. They add that unless there is a marked recovery in share prices, issues planned for September are likely to be withheld.

The FT ordinary share index has fallen 8.5 per cent. to 256.7 during the past two weeks. Compared with an average equity turnover of £80m. a week during the year, turnover last week declined to under £50m. Last week's average daily bargain marked were the lowest of the year.

These factors, and the large sums that have already been raised, have given rise to what one broker described as "an element of indignation" in the rights issue market. He pointed to the possibility that the fall in share prices some companies will have decided that rights issue money is now too expensive.

Near par

In other cases, it is suggested that the price of some companies' shares has fallen so close to par value that the companies can no longer make an issue offering a large enough discount on the current price to be sure of firm underwriting.

A further factor is the enthusiastic response to the £750m. offer of Government stock this month. It was reported that applications had been received for between £650m. and £700m. Stockbrokers suggest that institutional investors would not have allocated the whole of this sum to the private sector new issue market in the absence of Government issue, the response has reduced the liquidity of the new-issue market.

As one broker put it, companies which are particularly anxious to raise new equity funds, or those with special attractions for investors—such as a big rise in profits or dividends to announce—will be reluctant to postpone planned issues.

The pressure on the U.S. to keep things moving is now considerable, though it must now be in doubt whether Dr. Kissinger will be able to keep to his original plan, which was to resume his shuttle in early August to tie up the loose ends of an agreement which officials were saying ten days ago was substantially negotiated.

At the same time, however, reports from Dr. Kissinger's optimistic tone remain doggedly optimistic, though more complicated, could still be reached before the expiry of the present UNF mandate.

IN AMMAN, Mr. Zeid Rifa'i, the Prime Minister, said that Jordan had stood by its decision to call off a \$350m. arms deal with the U.S. if Congress forces cuts in the order.

Other developments Page 5

Civil Service union rejects £6 limit

BY JOHN WYLES, LABOUR REPORTER

BRITAIN'S largest Civil Service union, the Left-wing dominated Civil and Public Services Association, has rejected the new £6 flat rate pay policy and called a radical alternative strategy based on controls of capital outflow and more public ownership.

Claiming that an incomes policy must be accompanied by "greater social ownership," the CPSA's national executive voted 15 to 4 at the week-end to oppose the Government's new anti-inflation policy. This comes on the eve of the ballot by Britain's CPSA's national executive voted 15 to 4 at the week-end to oppose the Government's new anti-inflation policy. This comes on the eve of the ballot by Britain's CPSA's national executive voted 15 to 4 at the week-end to oppose the Government's new anti-inflation policy.

This procedure is expected to be suspended during the life of the £6 policy and some CPSA Left-wingers are arguing in favour of the union mounting a lone challenge on pay, if, as is likely, the majority of unions on the staff side of the Civil Service Whitley Council agree to toe the Government's line.

Statement

The second largest civil servants union, the Institution of Professional Civil Servants, which is not a member of the TUC, is expected to support the Government policy at a meeting of its national executive to-day. This would deny the anti-pay policy unions the two thirds majority needed to make policy on the Whitley Council staff side.

It would also reduce any temptation to oppose the policy which the National and Local Government Officers Association and the National Union of Teachers would feel if the Civil Service unions were all clearly challenging the Government.

A statement issued yesterday by the CPSA executive clearly echoed the tones of its militant majority. Rejecting the notion that wages are the main cause of the present crisis, the union described the White Paper as "an extreme attack on workers' living standards" which would produce unprecedentedly large-scale unemployment.

Another union which may oppose the White Paper at the September Congress, the 71,000-member National Association of Schoolmasters, has been assured by Mr. Len Murray, TUC secretary, that the £6 formula is only a "temporary policy put forward for the coming year to arrest the inflationary process, prevent massive unemployment and enable the Government to carry out its industrial programme."

Mr. Murray was replying to a letter from the NAS which complained of the effects of the flat-rate formula on the interests of the public sector professional workers whose pay is structured on promotion and increments.

The TUC general council appreciated these problems, said Mr. Murray, who added: "It is certainly not envisaged as a permanent policy for continually eroding differentials either between or within negotiating groups."

Optimism wears thin over Sinai peace negotiations

BY ALAIN CASS

BOTH ISRAEL and Egypt are once again talking about the possibility of war as the mood of relative optimism which prevailed over negotiations for an interim settlement in Sinai up to a week ago wears thinner.

Despite a willingness by both sides to go on talking and the continued diplomatic activity orchestrated by the U.S. on a more subdued level, positions have hardened and there is growing suspicion in Israel and Egypt of each other's ultimate intentions.

President Sadat said in Khartoum that Egypt's armies had been placed on 24-hour alert and were fully mobilised to go to war if there is no progress towards an agreement in Sinai.

Mr. Sadat, addressing a news conference before leaving for the Organisation of African Unity summit in Kampala, said he would not accept a settlement which allows Israeli stalling tactics to continue once the United Nations Emergency Force mandate in Sinai expires on October 24.

In what could be seen as a gesture of goodwill, however, he said that for the time being he was against Israel's expulsion from the UN despite a call by OAU foreign ministers to that effect. "If we are to demand that Israel implement UN resolutions," he said, "then Israel should be in the UN to implement them."

In Tel Aviv, meanwhile, an Israeli military source said that the two countries were "within hours" of war last week when Egypt waited until the last minute to renew the mandate. He added that war would almost certainly erupt if the present mandate is allowed to expire in October, though officials were also reported to be trying to play down the present crisis by saying that there was no sign of hostile activity on the Egyptian lines.

Brinkmanship

In Jerusalem the Cabinet met for five hours to hear a report from Mr. Rabin, the Prime Minister, on his rejection of most of the Egyptian proposals, while in Bonn Dr. Henry Kissinger consulted the U.S. Ambassador to Cairo, Mr. Hermann Ellits, who is flying back to the Egyptian capital to hand the latest Israeli terms to President Sadat.

Mr. Sadat's brinkmanship of last week and the hardening of Israel's position in response have clearly had their effect in undermining the progress of negotiations.

What is not clear is whether the latest bout of threats and accusations is merely tactical and designed to conceal the fact that the talks have reached their crucial stage or whether serious damage has, in fact, been done to the web of confidence that Dr. Kissinger was beginning to build up.

The pressure on the U.S. to keep things moving is now considerable, though it must now be in doubt whether Dr. Kissinger will be able to keep to his original plan, which was to resume his shuttle in early August to tie up the loose ends of an agreement which officials were saying ten days ago was substantially negotiated.

At the same time, however, reports from Dr. Kissinger's optimistic tone remain doggedly optimistic, though more complicated, could still be reached before the expiry of the present UNF mandate.

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by MICHAEL COVENEY

Covent Garden

by CLEMENT CRISP

Yorkshire theatre group in Cornwall

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* Music for Starters *

Pierluca: Steel sculpture from 'The Aggressors'

Winchester Cathedral

Southern Cathedrals Festival

by RONALD CRICHTON

The Entertainment Guide is on Page 4

Arts news in brief

Arts news in brief



1974 RESULTS

The cash flow for the fiscal year 1974 was equal to 88 million dollars (55.3 thousand million lire) in depreciation and net profit which has been carried forward in order to strengthen the financial position and to back the further expansion of the plants.

S.I.R.'s efforts in investments during 1974 have been substantial and mainly concentrated in Porto Torres, in central Sardinia and Lanuzza Tame, Calabria.

At the end of the year, apart from the substantial value of the plants under construction - gross fixed assets for working plants alone - including facilities - amounted to 768 million dollars (480 thousand million lire). Amongst the new plants started-up at Porto Torres, there was the 20,000 tons/yr polyester fibre plant expansion and the doubling of the LAB plant (brought up to 100,000 tons/yr.). Further plants brought on-stream were the plant for high purity butadiene, for a new type of

styrene free elastomer, and the plant for the super-fractioning of ethylbenzene with an annual capacity of about 30,000 tons; in the first few months of 1975 were also started the caustic soda plant expansion to 90,000 tons/yr. and the caustic soda flakes plant. Special attention has been taken to improve the services, the facilities and the safety in working conditions.

Research and Development costs accounted for about 2.5% of the turnover. The more encouraging results have been in resins (especially epoxy resins), agricultural products (clayey soil conditioner and preparation for reforestation).

Besides these, noticeable developments have taken place in research on new sources of proteins (biomasses from alcohols and from hydrocarbons) and on textile fibres with special characteristics.

Also to be underlined is the profuse co-operation in scientific research with research Institutes and Italian and foreign Universities.

As far as industrialized building is concerned, S.I.R.'s efforts and results allowed the transition from the initial research and experimental phase to full scale production of lightened cement panels (CESPAN) and completely prefabricated units for industrial buildings, schools and homes, with a consequent remarkable sales success both in Italy and abroad. The award of an international tender for the supply of a desalination plant proved the validity of the technology totally developed within the Company.

S.I.R.'s effort to realize the investment programme, during 1974, particularly in the South, has been most notable notwithstanding the difficulties caused by the credit squeeze and the delay in building infrastructures by the Public Authorities.

However, apart from what we have already said on Porto Torres, the first plants at Lamezia Terme should come on-stream by 1975. Other plants are to be started-up at Battipaglia, whilst construction work proceeds in central Sardinia.

Paris exhibitions

Pierluca at the Musée Rodin

by MICHAEL PEPPIATT

Pierluigi spent the last eight years and by far the most productive years of his life in France (at Bois d'Arcy, near Versailles). The sculptures and drawings he did during that time have now been brought together at the Musée Rodin, where they will be on show until September 15. Though the space allotted to them is quite inadequate for proper viewing (one wonders how they can use the museum's magnificent garden, which was made to show the monumental sculptures, which Pierluigi intended to be seen outside), this retrospective gives ample proof that Pierluigi, although

still not widely recognised, is one of the most gifted sculptors to have emerged since the war.

The works divide into three consecutive series: *Lacerations*, *The Collective Crime*, and in the last two years of his life, *The Aggressors*. The titles alone give a good idea of the basic theme of Pierluigi's sculptures. His sculptures are intensely alive, but with a life of a wound which devours. Their exquisite craftsmanship and the very sober, Florentine harmony of their forms only heighten the dramatic intensity and savagery of the savagery. "The intention is," Pierluigi says of his poems, "to destroy everything in order to begin again."

The *Lacerations* (in steel, aluminium, bronze and copper) begin as passive wounds: layers of welded metal brutally ripped apart. They create the impression of a fleshless, open wound—vulnerable, a fine of metal for the first time.

Gradually, however, they develop a system of self-protection. Their wounds become hooked like crab claws, or lie open in wait like the jaws of a crocodile.

The works in *The Collective Crime* and *Everyday* are like a sculptor, we participate passively in great crimes against humanity," he barely allow one to see inside. They are maws closing round another victim; the smooth outlines belie their crushing power.

From self-defence, the long-suffering metals of Pierluigi's sculptures pass to the attack of *The Aggressors*. They remind one rather of the pincer fordrifications Michelangelo designed for Florence, except that their cutting claws reach out in every direction and look as though they might bite and swallow man like a carnivorous plant. They are traps, the enemy of anything that comes their way.

The powerful assault these works make is maintained only by the most rigid discipline. Pierluigi's sculptures are never into repetition or expressionistic exaggerations. They remain as precise as a loaded weapon.

Behind — or rather, within — their extreme tension lies the sculptor's acute consciousness of humanity suffering. In another of his poems, Pierluigi writes: "I am like my works near men/who suffer from humanity/near those/who feel existence/a wound to be probed. . . ." As one looks at his sculptures, the echoes they give out from the past grow more distinct. In Pierluigi's disciplined tumult, the great Florentine tradition is reborn.

Moscow theatre

The Ascent of Mount Fuji

The Ascent of Mount Fuji had now been stunningly accepted at the Arena Stage of Washington, D.C., a theatre which has, in a variety of ways, shown considerable interest in the Soviet-American Union. Two years ago, this production was the first to be *Inherit the Wind* to Moscow and thereby became the first permanent American company to perform in Russia. Back in Washington a year later, the theatre presented *The Idiot* by Dostoevsky, *The Madness of God* by a play criticising the Soviet treatment of Jews. Rumours persisted that news of this production had almost persuaded Soviet officials to withhold permission for *Fuji* to be staged, such as rehearsal facilities, lighting and injury insurance. The director, Alan Schneider (who had directed *Zeimlen*), and he was replaced

by Zeida Fichandler, who is artistic director of the Arena Stage.

In this play, four old friends who fought together in the war, the wives of three of them, and their old teacher hold a reunion on a mountain in their native Kirghizia, a peak which traditionally requires people to tell the truth. The free exchanges establish the main characters—the self-satisfied agronomist of the local collective farm, who is the host; an opportunistic journalist; his wife, a high-minded idealist; and a young woman, Mary Stuart and wanted her husband to be a great poet; a conscientious teacher of history; and a prematurely fossilised pedant. Persistently, they return to the subject of their missing comrade, a poet of enormous promise, who wrote a last poem during the war and was betrayed by one of them. He was arrested, convicted, exiled, and only afterwards amnestied. His life is ruined: he wrote no more. If only one friend believed in him, if only one of their silence, accomplices in that betrayal. Unexpectedly, on the mountain top, the friends are confronted with another crisis, and this time, some of them face it more courageously.

Obviously, the authors are glad to use the denunciations of the Stalin era and at the guilty silence of those who did not protest. This political

element has surely added to the play's interest for American audiences, but there is another basis for its appeal: it is a warm and spirited portrait of interesting, credible people who suffer only slightly from that besetting ailment of Soviet dramaturgy, excessive aspiration.

These old comrades, with their assorted virtues and blemishes, make a striking contrast with the characters of *That Championship Season*, a roughly contemporary American play with much more sophisticated and intriguing premise: four old school friends, reunited with an old teacher of theirs, recall a fifth companion who is missing. In the American play, the characters have only blemishes, except for one drunk who would probably be as bad as the rest if he were sober.

Where the Russian set (at the Sovremennik) was abstract and the Moscow cast did not strive especially to be Kirghiz, the Arena Stage's mountain-top is realistic and the actors work effectively at Kirghiz mannerisms. In the uniformly excellent production must be noted the desperate intensity of Max Wright as the history teacher and the Olympian calm of Vivian Nathan as the older woman who taught all of them. Both Washington and Moscow should be proud of Fujii.

HENRY POPKIN

HENRY POPKIN

Labour MP denounces Tribune 'whip'

IP denounces Tribune 'whip'

es Tribune 'whip'

U.K. employment policy 'undated'

'whip'

Cheaper potatoes help year's first fall in grocery index

The biggest fall was, predictably, in the fruit and vegetable category where potatoes—one of the biggest single items in the very low levels they reached last month, these increases did not appear to have percolated through to the shops when the summer switching from expensive

N. Atlantic air traffic up slightly

Proposed State oil group 'unnecessary and unfair'

ENTERTAINMENT GUIDE

امكن ان الاصل

OVERSEAS NEWS

Sinai deal looks distant to Israel

BY L. DANIEL

TEL AVIV, July 27.

THE Middle East situation appears to have taken a sudden turn for the worse. The chances of a second interim agreement being reached between Israel and Egypt look very far off here, if they exist at all, because the two sides positions are still irreconcilable.

Israel, a week ago, submitted to Egypt what were described in Jerusalem as Israel's final proposals in the present circumstances. These proposals included withdrawal from the Abu Rudeis oilfields, the creation of an Egyptian corridor to them and the handing over of all but a mile of the strategic Sinai passes to Egypt.

Israel's proposals were regarded by many people here as foolhardy. The passes constitute one of Israel's few trump cards in her bid for an eventual peace agreement and Egypt is at present offering nothing more than an understanding that the UN forces could stay in Sinai for around three years. Nevertheless, the Rabin Government decided to take the risk of giving way in the hope that time would do its own work and that more propitious conditions might obtain in three years' time which would permit President Sadat to conclude an agreement of a more political and more permanent nature.

This expectation seems to have been misinterpreted in Cairo as simply a bargaining stancer calling for tougher Egyptian terms. These came in the form of Mr. Sadat's refusal to automatically renew the UN mandate. Cairo finally agreed to the extension of the mandate by three months but the lesson has been learned here. A senior military source pointed out today that had the mandate not been extended and had UNEF commander Silasvuo withdrawn his troops to base camps, a vacuum would have been drawn in troops from both sides, with war resulting within a matter of hours.

Egypt, accompanied the UN manoeuvre with the mobilisation of its land air and naval forces, so the lesson was driven home even more forcefully.

The latest Egyptian proposals, reflect the same degree of toughness. These ask for a much bigger slice of the Sinai down to Abu Rudeis, more of the passes and a minimal American presence at the early warning installation.

Senior reports from Jerusalem, however, suggest that the UN will precipitate the destruction of the world organisation, a Government official said to-night, commenting on a draft resolution agreed by the OAU calling for Israel's suspension from the UN.

Christian Democrats replace Sig. Fanfani

BY ANTHONY ROBINSON

ROME, July 27.

AFTER FOUR days of bitter fighting Italy's Christian Democrat Party National Council has finally chosen a 63-year-old outsider Signor Benigno Zaccagnini for the post of Party Secretary to replace Signor Amintore Fanfani who was ousted last Tuesday.

Signor Zaccagnini is a political ally of Mr. Aldo Moro, the PM. A former pediatrician he fought with the partisans at the end of the last war and has been a Christian Democrat deputy in Parliament continuously since 1947. A former Minister of Labour and Minister of Public Works he has also held down various party posts including chairman of the C.D. party group in the Lower House and latterly chairman of the national council.

He is regarded both within and outside the party as a personally unambitious man who has kept aloof from the private empire building which has characterised the past few years of C.D. party affairs. Observers have dubbed him "the right man chosen in the wrong way."

He owes his election principally to the inability of the party's largest faction, the Doroteo, to drum up sufficient support for their candidate, Signor Flaminio Piccoli. The latter saw his efforts thwarted by the implacable opposition of Mr. Fanfani and the second thoughts of other faction leaders who failed to see in Mr. Piccoli the qualities needed to give the party leadership and a credible new image.

But the failure to impose their own candidate represents a traumatic shock for the Doroteo faction, who have long considered itself the party's kingmaker. Right up to the end the Doroteo group had threatened to resign their Government posts and bring down Mr. Moro's Government if they failed to have their way. Faced with this threat, Mr. Moro calmly let it be known that he would simply replace them by men from other factions. Now they have had their bluff called. It remains to be seen whether Foreign Minister Mariano Rumor and the other Doroteo Ministers will in fact resign. The odds are against it, however, as the Doroteo faction is above all an alliance for power. In many ways its dilemma is that of the CD party itself—if it loses power it risks losing the only cement which holds it together, power itself.

Greek junta on trial

BY OUR OWN CORRESPONDENT

ATHENS, July 27.

TWENTY ringleaders of the military junta which seized power in April, 1967, including Mr. George Papadopoulos, the former president, go on trial before a civilian high court tomorrow on charges of high treason and insurrection which entail a possible death penalty.

The trial, termed here the "Nuremberg of Greece," is being held amid public concern that the fallen junta still has a sizeable number of diehard supporters.

Strict security measures are being taken to prevent a recurrence of last Wednesday's violent rioting in Athens believed to have been instigated by former members of the hated military police bent on creating a state of anarchy to undermine the government and possibly have the trial postponed.

In addition to banning open air rallies until the end of the trial, expected to last six weeks, the government has turned the Korydallos prison near Piraeus into a formidable fortress. Strong police forces backed by armoured cars guard the area while anti-tank artillery has been placed inside the prison walls.

The 150-page indictment calls for the trial of 24 leading members of the Junta. Three of them have managed to escape arrest and are abroad. A fourth, retired Lt-Colonel Theodoros Theotoky, will be tried separately later on the high treason charges. This will enable him to stand trial by court martial on August seven together with 31 other officers on charges of having tortured political prisoners.

'Clean up the Rhine'

BY PAUL ELLMAN

WESTERN EUROPE has made little progress towards effective regional action to stem pollution of its greatest commercial waterway, the Rhine, according to a study published today.

Prepared by a group set up jointly by the Royal Institute of International Affairs and Political and Economic Planning, the study finds that "it is clear that politically and historically there is no great sense of the area as an entity."

Although the river has had a divisive effect as a frontier and suffers from wide geographical contrasts, the study argues that there is a strong case for overall environmental management to ensure its most efficient use.

The authors suggest that national governments should allow a great deal of freedom to local and regional authorities. This could be done by making fuller use of existing organisations rather than by creating a new authority.

Protests at Mrs. Gandhi

NEW DELHI, July 27. AN ESTIMATED 10,000 Indians have demonstrated in Gujarat against Mrs. Gandhi's state of emergency decree, newsmen returning from the scene said today.

Foreign correspondents who covered the rally on Saturday in Ahmedabad, the state capital, said Rajubhai Patel, the chief minister, called for non-violent resistance to the measure.

The demonstrations, the first known mass protests against the emergency, were in direct violation of the decree which forbids the gathering of more than five persons in a public place.

In New Delhi, most foreign correspondents have signed a revised Government agreement to assume "full responsibility" for their dispatches in view of stiff Government censorship guidelines. The statement, unlike a previous one the Government has since withdrawn, does not commit the newsmen to follow the guidelines.

U.S. team for Dubai blowout

DUBAI, July 27. A TEAM of American oil experts arrived here today to deal with a wildcat well, spewing poisonous gas, which has caused a big cut in the Gulf state's oil production, informed sources said today.

The well was being drilled in the Dubai Petroleum Company's Fatah complex, 60 miles offshore, when it blew out, pushing water and hydrogen sulphide gas. Officials of the company, operated by Continental Oil (Conoco), immediately evacuated about 100 workers from the area and closed down nearby producing wells.

A statement issued by Conoco in New York said that the temporary closure of the producing wells had cut output by 250,000 barrels a day, more than half Dubai's daily production of 400,000 barrels.

The statement added it was impossible to say when full or partial production would be restored.

Kampala schedule days behind

By John Worrall

KAMPALA, July 27.

THREE apparently intractable issues concerned with Angola, the Middle East and Tanzania's sensational censure of the OAU for holding its summit in Kampala have caused the Council of Foreign Ministers to overrun its timetable by nearly two days.

An all-night session on Saturday failed to bring agreement and the Foreign Ministers were due to work into the small hours of tomorrow. Resolutions have to be submitted to the African leaders summit which begins tomorrow. Zaire has accused Portugal of backing the Russian movement defending Luanda from reinforcements and supplies, a Portuguese military spokesman said today.

He said that the National Front army, commanded by its president, Holden Roberto, has taken two strategic towns which control road and rail links with Luanda—Caxito, 27 miles north, and Lucala, 170 miles east of the capital.

The spokesman could not say if the National Front was continuing its march to-day or whether it was consolidating its forces. He said that the Front and its rival, the MPLA, were fighting at Malange, 220 miles east of the capital, where 700 civilians took refuge in the Portuguese army barracks.

In Luanda, held by the Popular Movement, a group of Front troops held the 16th-century Sao Pedro da Barra fort beside the city's fuel dump. During fighting on Saturday a low-octane fuel storage tank was set alight, sending a cloud of black smoke over the seaside capital. At three points in the northern Movement used mortar bombs to try and dislodge three of their rival's remaining units.

Crucial test for OAU and future of Africa

BY BRIDGET BLOOM, AFRICA CORRESPONDENT

THE 12th summit of the Organisation of African Unity which opens in Kampala this morning faces two major and apparently intractable issues—Angola and the future of detente in Southern Africa. Both challenge independent Africa's unity where the controversy surrounding the chairmanship of the meeting by President Amin of Uganda has already, by causing the absence of at least four of the Continent's key leaders, shown its disruptive potential.

Angola, with the civil war entering a new and more

dangerous phase, is likely to head the crowded agenda. At last week's preparatory meeting of foreign ministers, leaders of the Portuguese colony's warring nationalist groups were invited to the Ugandan capital. But the news over the week-end that the army of one of these groups, the Western-orientated Zaire-based National Front for the Liberation of Angola (FNLA) was marching against the Angolan capital Luanda, from which it has been ousted in the past months by the rival semi-Marxist movement for the Popular Liberation of Angola (MPLA) makes the likelihood of OAU mediation

in the conflict extremely remote at this juncture. The absence of the Presidents of Tanzania, Zambia, Mozambique and Botswana—the key figures in the Southern African detente exercise—also renders agreement on that major issue improbable. While prospects for a negotiated settlement in Rhodesia, the key to detente, seem as far away as ever, President Nyerere's latest offer to continue the process of mediation between Rhodesian whites and blacks is unlikely to be endorsed.

On the broad issues, however, much will depend on precisely which leaders among

the rest of the OAU's 45 member States are actually present for this week's deliberations. Both General Gowon of Nigeria and President Kenyatta of Kenya are expected in Kampala and both men could have a moderating influence.

But the Heads of State are also faced with the hardest line resolutions on the Arab-Israeli conflict yet submitted to an OAU summit. It calls not only for full OAU support for the Arab cause, but for economic sanctions against Israel and its expulsion from the U.N. Resolutions to this effect were finally drafted last night.

S. African police action plea

By Tony Hawkins

SALISBURY, July 27.

RHODESIA'S Minister of Defence, Mr. Pieter Van Der Byl, has appealed for a return to the front line of anti-guerrilla warfare of the South African police (SAP).

In an interview with a South African newspaper to-day, Mr. Van Der Byl said: "I want to see the men who played such a magnificent part in our security role back in business."

He said that the police, who have not been taking part in anti-guerrilla operations since early this year, would bolster Rhodesia's military build up now under way and would reverse the situation in which black militants had been encouraged to become more "arrogant" because the SAP were confined to their camps.

In recent weeks, Rhodesian Government spokesmen have made it clear that they are preparing for an escalation of the war which has been threatened by black nationalist leaders, including Bishop Muzorewa who last week gave Mr. Smith three months to attend a constitutional conference outside Rhodesia or face up to "all out war."

Political observers here see Mr. Van Der Byl's remarks as a major problem for the South African Government, still apparently committed to the fast-flagging detente exercise. The South African Government will have to decide whether or not to participate in the planned Rhodesian security drive.

FNLA takes towns north, east of Luanda

LUANDA, July 27.

THE 5,000-strong army of the FNLA, marching south on the capital, has captured strategic towns north and east of Luanda, effectively cutting off the rival movement defending Luanda from reinforcements and supplies, a Portuguese military spokesman said today.

He said that the National Front army, commanded by its president, Holden Roberto, has taken two strategic towns which control road and rail links with Luanda—Caxito, 27 miles north, and Lucala, 170 miles east of the capital.

The spokesman could not say if the National Front was continuing its march to-day or whether it was consolidating its forces. He said that the Front and its rival, the MPLA, were fighting at Malange, 220 miles east of the capital, where 700 civilians took refuge in the Portuguese army barracks.

In Luanda, held by the Popular Movement, a group of Front troops held the 16th-century Sao Pedro da Barra fort beside the city's fuel dump. During fighting on Saturday a low-octane fuel storage tank was set alight, sending a cloud of black smoke over the seaside capital. At three points in the northern Movement used mortar bombs to try and dislodge three of their rival's remaining units.

In Luanda, at least 20 people were killed when Portuguese troops opened fire to-day outside the city. An MPLA spokesman said shots were fired when the Portuguese troops demanded the handover of MPLA soldiers they claimed had shot dead one of their officers the previous night. The Luanda headquarters of the MPLA.

The present fighting began about two weeks ago when the handover of MPLA soldiers they claimed had shot dead one of their officers the previous night. The Luanda headquarters of the MPLA.

nationalist alignment. During this year they signed seven peace treaties and broke them all, the last on July 24. UPI

Our Own Correspondent reports: The British Consulate in Luanda, where the first British consulate opened in December, 1844, was closed down to-day and the seven British members of the consular staff were evacuated on Board a VC10 of the RAF.

Twenty other British citizens, mainly businessmen, left on the aircraft together with about ten Americans and another 18 people of various nationalities, the almost all men as most dependants of expatriate residents in Luanda had already left.

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THE JOBS COLUMN

They all say 'too low'

BY MICHAEL DIXON

I ASKED for it. About two score readers have been in touch as a result of my request for comments on the "Reward" salary statistics printed in the last Jobs Column. I am very grateful to them, even though they have left me somewhat floundering amid piles of paper.

All of the readers' replies are agreed on one point. It is that the Reward figures (based on a sample of around 3,800 people in the London area who became job-candidates with the government-sponsored Professional and Executive Recruitment agency in February-May) are too low to be representative.

To give an idea of the PER levels' lowliness, Barry Hild, the incomes research manager of Lloyd Executive Selection has sent the table which is printed here this week.

The table compares some of the Reward figures (given in brackets) with the results of Lloyd's own surveys also made in the London area at about the same time. Whereas the Reward figures are culled from candidates seeking jobs, however, Lloyd's statistics are arrived at, basically by asking a sample of companies what they are actually paying to people in the categories concerned at the survey date.

As you see, the result is salary levels which generally exceed those of the PER sample. In several instances, the difference is considerable.

What is more, other information sent by the highly regarded salary surveying company Remuneration Economics — which also bases its findings on what employers report they are paying — suggests that the Lloyd statistics may be too low.

Much of the Remuneration Economics information is not sufficiently comparable to set against this week's table. But it does provide adequately corresponding lower quartile, median, and upper quartile figures for London-based computer people, as follows:

Computer managers £8,500, £7,312, and £8,607. Systems analysts £3,744, £4,350, and £4,990. Programmers £2,520, £2,050, and £2,626.

The readers' unanimous belief that it is the Reward survey which is wrong is based on several arguments.

One is that PER job-candidates not only include numerous unemployed but also tend to come from the lower grades of staff in the various categories of "managerial" work. In consequence, this argument runs, the Reward survey is almost by its nature weighted heavily downwards.

Another oft-repeated explanation is that the Reward figures are based on the insensitive job-level — classification system, CODOT. As a result, the survey

	Lower quartile	Median	Upper quartile
Company secretaries	£4,500 (£3,500)	£5,750 (£5,000)	£8,000 (£6,000)
Financial accountants	£3,500 (£3,000)	£4,250 (£3,750)	£4,750 (£4,700)
Cost accountants	£3,500 (£3,000)	£3,750 (£3,750)	£4,250 (£4,750)
Marketing managers	£4,750 (£3,200)	£5,500 (£4,200)	£6,000 (£5,500)
Sales managers	£5,000 (£3,450)	£5,750 (£4,050)	£6,500 (£5,000)
Administration managers	£3,500 (£3,000)	£4,000 (£3,650)	£4,750 (£4,350)
Personnel managers	£3,500 (£2,750)	£4,500 (£3,300)	£5,000 (£4,500)
Production managers	£3,500 (£3,000)	£4,250 (£3,500)	£4,750 (£4,100)
Purchasing managers	£3,500 (£3,000)	£4,250 (£3,100)	£4,750 (£4,000)
Computer managers	£5,500 (£4,200)	£6,000 (£5,250)	£6,500 (£5,500)
Systems analysts	£3,250 (£2,800)	£3,750 (£3,400)	£4,000 (£4,000)
Programmers	£2,850 (£2,200)	£3,250 (£2,500)	£3,250 (£2,900)

The Executive's World

Art Garcia reports on the bureaucratic bible which has been sweeping U.S. boardrooms

Maxims for Blunderland

PICK A TRADE, profession or special interest and chances are dozens of books are available to tell you how to do it, but for someone who aspires to be a bureaucrat, such resources simply are not sufficient," says Thomas Martin Jr., a genial and unassuming 53-year-old academician who has attempted to fill that void. Since bureaucracies are an essential part of government, industry and education, what is needed is a handbook or training manual to supplement the rules, axioms and principles that have been produced by management theorists in recent years, something Mr. Martin, an electrical engineer who is president of Illinois Institute of Technology, provides by analysing this collected wit and wisdom.

The scalpel Mr. Martin uses to get to the heart of bureaucratic truth is the sharp edge of sardonic humour. Managers have smiled knowingly at the important contributions to understanding corporate bureaucracy stated so succinctly by C. Northcote Parkinson, Laurence Peter and Antony Jay. These have helped their understanding of why where they work is, as Mr. Martin puts it, "a veritable blunderland of mishap, delay, confusion, maladroitness and induced group paranoia." The authors all offer valuable insights but the principles they espouse are all-encompassing attempts to create a "cosmology" for corporate behaviour, contends Mr. Martin.



"These attempts to achieve universality are doomed to failure," he argues, because there are too many varieties of bureaucracies and the many aspects of human response to them lead to more situations than can be accurately described by a few "highly generalised" laws or principles. "Blunderland," he goes on, "is a complex world, at least as complicated as high energy physics, and therefore requires an equally extensive collection of laws and principles for its description." Thus, the aim of his book, "Malice in Blunderland," is to collect in related sequences, "all of the laws of organisational and bureaucratic behaviour that can be found."

Murphy's Law

Conceding that many positive accomplishments are the result of bureaucratic effort, Mr. Martin also notes that bureaucrats and bureaucrats "are the architects of much of the mischief, or the malice, intentional or unintentional, that characterises the world to-day."

With the foundation provided by the well-known Murphy's Law ("If something can go wrong, it will") and Peter Principle ("In a hierarchy every employee tends to rise to his maximum level of incompetence"), he links analogs, corollaries, axioms, maxims and nuances of others as well as many of his own. The brief book, first published by McGraw-Hill Book Company in 1973, now is in its third printing.

Since the turn of the century, the world has seen an enormous expansion of bureaucracy at all levels. "And so, as individuals flapping the pages of Mr. Martin's 128-page book, there's ever-expanding bureaucracies, shadow of death I shall fear rise to the top."

solace, encouragement or inspiration on nearly every page. Early in the book, for example, he introduces the "laws of the citizen a part of many and the victim of many more," he says. Lee Harrisberger, a dean of engineering at the University of Texas, which can be applied anywhere: "If it justifies force, it is bureaucratic not answerable to anyone." Then there's Thoreau's chapter entitled, "Hierarchical Law: 'If you see a manager approaching you with the obvious intent of doing you good, you should run for your life.'" An unknown author given the name Jones is credited with this due to executive longevity: "The man who can smile when things go wrong has thought of someone he can blame it on." That's buttressed by the confidence of Peter's Placebo, which declares: "An ounce of bludge is worth a pound of performance."

Eric Sevareid, a noted CBS radio and television network commentator, provided a simple explanation of why things go wrong: "The chief cause of problems is solutions," a law characterises the world to-day. "It should be clear to even the most casual observer the United States is not suffering from too many problems. No, we are suffering from an overwhelming excess of solutions. If the politicians would just stop inventing solutions," writes Mr. Martin, "our problems would largely go away."

The nation's ills, he suggests, are the result of "too many provocative purveyors of panacea—those experts who have all the answers if only they could find the right solutions."

Since the turn of the century, the world has seen an enormous expansion of bureaucracy at all levels. "And so, as individuals flapping the pages of Mr. Martin's 128-page book, there's ever-expanding bureaucracies, shadow of death I shall fear rise to the top."

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The Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

COMMUNICATIONS

Electronic postman at the desk

MUIRHEAD has chosen the second World Telecommunications Exhibition, to be held in Geneva next October, for the unveiling of its answer to soaring charges and postal charges, and the unacceptable delays in getting important messages passed round and between companies.

"Muxagram" describes the equipment, which comprises a compact desk-top receiver and a small transmitter. The company asserts that, with it, correspondence and inter-office memoranda can be produced and despatched at considerably lower cost than by much higher speed than by conventional means.

Handling paper slightly smaller than A5 size, the unit does not need to be fed with typescript—handwriting is as legible, or illegible, on receipt

as it was at despatch. The executive's unit is less than six inches high and occupies about a square foot of desk space. It operates without attention and would normally be coupled with increasing use of the public switch network.

There is no obstacle to installing the Muxagram in land vehicles, boats and aircraft. Radioteletype links being used in these instances. Office to office confidentiality is complete and the speed of transmission of a full message is comparable, favourably, with dictating a communication to a shorthand writer who would still have to reproduce the notes in type.

Muirhead has given the following operating costs for its executive's facsimile unit, applied to a 200-word message:

	Dedicated Public Circuit	Network
Local	0.24p	1.8p
Up to 56 km	0.62p	5.4p
Over 56 km	2.36p	12.6p

The company points out that preparation, and paper costs for a normal letter are very much higher than the above without counting the cost of postage which, the company considers, must inevitably rise to European heights in the not too distant future. It is also well-known that IBM and Philips, to name only two companies in word-processing markets, assume a cost of not far from £2 per letter written from any major city under present conditions.

Muirhead, Data Communications Division, Beckenham, Kent BR3 4BE (01-650 4889).

ELECTRONICS

Beckman bid in process control

A FULL range of electronic controllers, recorders, transmitters and panel mounted accessories marks Beckman's entry into the U.K. process control field.

For the controllers a hybrid digital/analog approach has been used in which digital circuits are used for control, "housekeeping" and indication while analogue techniques implement the process control functions. One outcome is the prevention of overshoot when a change is made from manual to automatic, remote local or any other similar transfer.

This "bumpless" operation is due to a settling circuit which determines any difference between process variable and set point and positions control devices in the plant accordingly. Other features include a six inch servo meter with 0.5 per cent accuracy, deviation bands selectable at two, five or ten per cent and easy upgrading to computer operation.

Four variable reluctance transmitters are launched for differential, absolute and gauge pressure, and for level. Conditioning and compensation is electronic and data is transmitted as a 4 to 20 mA signal.

Improved storage tubes

Pen cleaning and inking becomes a thing of the past in the recorders, which employ direct writing techniques with pressure sensitive paper. On the single/dual channel instruments the pens write horizontally and the appearance conforms with the controllers and other panel mounted accessories. There is also a six channel version which writes vertically and is mounted in standard 19 in. rack.

Further information from Mr. D. Collier, Beckman-RIC, East-Indies Estate, Glenrothes, Fife (0592 771234).

Pulse code channel upgrade

WITHOUT SAYING how it has been done, Bell Laboratories has announced successful development of equipment that should in due course allow the 40m. circuit miles of 24 channel PCM already installed in the U.S. to be upgraded to 48 channels.

There appears to have been no change in the transmitted bit rate at 1.5 megabits/sec.: the larger message carrying capacity is made possible by "newly designed electronics in the terminal and repeater" devices installed in manholes along the route.

LUBRICATION

Much less risk of corrosion

A HIGH temperature bearing grease, Rocol BRB 1200, which, says the manufacturer, resists corrosion to a degree previously considered impossible in bentonite based greases, without resorting to the use of sodium nitrate as an inhibitor, has been introduced by Rocol.

The company says its research has led to the identification of a new type of inorganic corrosion inhibitor for greases. It is a compound that is non-toxic, yet compatible with the organo-clay base of Rocol BRB-1200, and not adversely affecting the lubricant's physical and temperature attributes.

It is claimed the grease meets the most stringent requirements of the Emcor Test (I.P.220), a test set by the Institute of Petroleum to measure the corrosion resistance of bearing greases.

Suitable for all types of ball and roller bearings, the lubricant withstands temperatures from -50 degrees C to over 200 degrees C. Technical data may be obtained from Rocol, Rocol House, Swillington, Leeds, LS26 8BS.

COMPONENTS

Will repair iron pipes

INTRODUCED BY Thompson-CSF, Bell Road, Daneshill, Basingstoke, Hants RG24 0QG (0256 39155) is a new series of single-ended recording storage tubes.

Using electromagnetic focusing and deflection with non-destructive read-out they are stated to have excellent grey-scale characteristics and are offered in 1, 1½ and 2 inch sizes, designated TME 1238A, TME 1238B and TME803. The orthogonal read-write resolution at 50 per cent modulation is 1,000, 1,500 and 2,700 TV lines per diameter respectively, although these figures can be increased by operating the tube at higher voltages at the expense of a slight degradation of image uniformity. The limiting resolutions are respectively 2,000, 2,700 and 4,300 TV lines per diameter.

Likely applications for the tubes include TV frame freeze, slow scan television, data recording and storage, scan conversion and the integration of low level video signals. The big tube can be used in detail applications such as the production of hard copy from electrical signals or the storage of several TV-quality pictures side by side.

METALWORKING

Power from the sun

POWER TOWER describes a method of using solar heat reflected from banks of mirrors for the large-scale generation of electricity. It is to be tested by Honeywell under an experimental U.S. Government study.

The experiment will seek to provide high energy concentration on a steam boiler mounted on top of a tower several hundred feet high. Banks of mirrors—heliostats—around the tower's base will focus the sun's rays on the boiler to generate steam. The steam would be piped under pressure to a conventional turbine generator, its heat stored for later use.

Authorisation for the study is from the U.S. Energy Research and Development Administration (ERDA), now backing many solar and other projects in U.S. drive to become self-sufficient in energy by 1980. Solar power alone has had some

INSTRUMENTS

Wide range profiler

INSTRUMENTS producing a magnified cross section of surface irregularities over unusually wide ranges are being introduced by Gould Alice in France.

Each equipment consists of a controller unit, either single or dual channel recorder unit and one of three drive units with 11, 6 or 12 inch traverse (38, 152 or 305 mm.). The one foot stylus traverse is believed to be the longest available.

Vertical sensitivity magnification can be from 100 to 1,000,000 times and meter cut-offs range from 0.005 to 0.3 inches (0.127 to 7.6 mm.), depending on the surface and the traverse speed. The latter can be selected between 0.01 and 0.10 in./sec. (0.254 and 2.54 mm./sec.).

A levelling device automatically compensates for the angle

between the work piece surface and the instrument centre line. Part traces are thus prevented from leaving the paper, and operator adjustments from sample to sample are eliminated. More from Gould Alice, P.O. Box 51, F-91160 Longjumeau, France.

Vibration meter for the tyro

B & K LABORATORIES, Cross Lane Road, Hounslow, Middlesex, has a vibration meter for use by non-scientific personnel in any section of industry where the protective maintenance of valuable machinery is vital or where any form of vibration analysis is desirable.

Type 2511 has a wide range and is used in conjunction with

the outer surface of the shaft during vibration and setting, after which it is removed and the membrane deflated. The final result is a dense monolithic concrete shell, ready for the finishing trades to take over.

Hoist offers the Parashell system in seven sizes ranging from a basic diameter of 12 metres (40 feet) and polar height of 4 metres (13 feet) through to 40 metres (130 feet) diameter and 12 metres (40 feet) high.

Full details of the system are available from Hoist Specialised Structures, 46 Clarendon Road, Watford, Herts. WD1 1HE (Watford 34451). Information on the Parashell membrane can be obtained from Liquid Plastics, London Road, Preston, Lancashire PR1 4AJ (0772-58781).

A cover sheet remains over

plug-in pick-up device to measure all forms of vibration. It is completely portable and its high standard of accuracy and stability makes it suitable for both laboratory and industrial applications.

Operation is simple and the device is calibrated in both metric and British units. Long cables between the pick-up and the instrument can be used without reduction in performance.

Measurements in terms of acceleration velocity, and displacement can be made and the RMS or peak-to-peak meter readings of the measured signals can be held at their maximum point by means of a switch provided for the purpose. The instrument has a frequency range of 0.3 Hz to 15 kHz in the acceleration mode and in the displacement mode the frequency range is determined by built-in filters.

A built-in calibration signal is also provided.

The company is 05-870 7774.

COMPUTERS

Tape format converter

DATA RECEIVED from cassette drives can be converted into computer compatible format on half inch reel-to-reel magnetic tape using the MT 472/4 format converter introduced by Feedback Data. A hardware unit, it offers an alternative to the more costly computer controlled systems sometimes used for this purpose.

It consists of a 10½-inch reel tape transport controlled by a buffered format converter with code conversion electronics and the appropriate input interface. Incoming data, which may be in 6-bit parallel or modem-compatible V24 form, is stacked in the buffer and code converted before recording on the tape in ICL or IBM standard. Both NRZI and PE versions are available.

Full read-after-write verification checks are carried out on the recorded data and in the event of a detected error a routine of re-tries is performed before alarms inform the operator. Further details from Feedback Data, 222 Sussex Road, Crawley, Sussex TN6 3QR (0828 3322).

It is planned to experiment with eutectic mixtures of salts as the heat-storage medium, an area where the Philips Research Laboratories in Eindhoven have made considerable progress. The cheap fluoride mixtures are so much more efficient as heat store materials than the substances at present used that storage heaters could be made one third the size they are now. The also function at higher temperatures.

In 1973 and 1974, Honeywell was awarded two successive contracts by NASA's Lewis Centre to deliver flat-plate solar energy collectors for heating and cooling residences and small buildings. Honeywell's design has shown collection efficiencies of more than 50 per cent at 200°F, exceeding the programme design objectives. Four alternative flat-plate solar collectors, using aluminium and steel absorber plates, were fabricated and tested.

Early in 1975, NASA's Marshall Space Flight Centre awarded Honeywell a 10-month contract to design, develop, test and deliver a low-cost flat-plate collector for residential use.

The dry cells now being used, which need continual replacement, cost between \$4 and \$9 per set.

While the initial cost is high—\$23 for the accumulator and \$120 for the set of solar cells—the solution should be much cheaper in the long run since their life expectancy is five to ten years.

CONTRACTS AND TENDERS



INTERNATIONAL TENDER No. 2/75 ZUARA FISHING PORT PROJECT

International Firms specialised in marine port and shipyard works, and local Class A specialised contractors are invited to tender for the above project, subject to being registered in the special Register of Contractors at the Ministry of Housing and Public Utilities.

TENDER DOCUMENTS: Tender documents and conditions of contract and other relevant documents are obtainable from the following address during the period between July 1st and July 31st, 1975, against payment of a non-refundable sum of LD500, plus taxation stamps:

The Controller's Office,
Council for Food Affairs and Marine Wealth,
Abuhrida Street,
Tripoli, Libya.

PROJECT DETAILS: The tender shall be considered as one indivisible unit, and shall include the following: marine dredging, land reclamation, quays, breakwaters, building roads, water supply, sewerage, surface drainage, electrical works, harbour and ship repair yard equipment, etc.

CONDITIONS: Tenders not complying with the following conditions will be discarded:

1. An initial guarantee in the sum of LD200,000 shall be submitted with each tender in one of the following methods:
a. Receipt issued by the Public Treasury.
b. Certified cheque issued by one of the banks operating in the LAR.
c. Letters of Guarantee issued by one of the active banks in the LAR, valid for a period of six months and duly certified by the Taxation Control.
2. Tenderers must submit with their tenders evidence of previous experience in executing similar works with regard to size and type, together with details pertaining to their respective financial status. This information shall be taken into consideration when the Committee considers tenders.
3. Tenderers shall abide by the provisions prescribed in the "Instructions to Tenderers," and shall be bound by all the conditions contained in the relevant documents of the tender and its appendices.
4. If the successful tenderer fails to sign the contract within a period of one month from date of notification thereof, the Council shall have the right to confiscate the Guarantee in full, and without recourse to legal action.
5. The successful tenderer shall, on signing the contract, submit the Performance Bond amounting to 10 per cent of the contract value.
6. Tenderers or their representatives may, if they so desire, be present at the time of the opening of the tenders which will take place at 10 a.m. on Saturday, November 1st, 1975, as the deadline for acceptance of tenders.
7. The Council shall have the right to reject tenders without giving reasons, nor shall the Council be bound to accept the lowest tender.

SUBMITTING TENDERS: Tenders shall be submitted in sealed envelopes marked with the name of the project to the following address, not later than 10.00 hours on Saturday, 1st November, 1975 (or at the same time on the following working day in the event of an official holiday). Tenders received after the closing date shall be discarded.

The Secretary,
The Sub-Committee for Fishing Port Tenders,
General Department of Marine Wealth,
Council for Food and Marine Wealth,
Abuhrida Street,
TRIPOLI, L.A.R.



UNIVERSITY OF BENGHAZI Announcement of Tender

The University of Benghazi announces tendering Phase 4 of the University City of Benghazi which consists of two similar reinforced concrete dormitories of two to four storeys for accommodating students (Halls of Residence) with a total floor area of 27,000 sq.m. each, and three single-floored dining halls and kitchens of 4,500 sq.m. floor area, as well as the required services and external works. Fully detailed tender documents prepared by U.K. consultants are available.

The University invites the interested companies and contractors of international repute who have the ability and experience in such projects to apply in writing to the address below, enclosing documents with full details of company organisation and experience together with a money order for LD 200 or U.S. \$700 (non-refundable) for the purchase of the tender documents. The documents will be despatched by registered airmail.

Tenders must be returned to the address below and received before 12 noon on September 27th, 1975. Any tenders received after the above-mentioned time or date will not be considered.

The University of Benghazi is entitled to accept or reject any tender without being liable to assign any reason for its choice.

All correspondence and any extra enquiries should be addressed to:

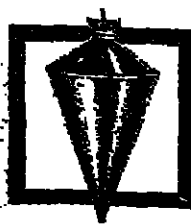
The Secretary,
Central Tendering Committee,
University of Benghazi,
P.O. Box 1305,
BENGHAZI, L.A.R.

FEDERAL REPUBLIC OF GERMANY NOTICE TO BUILDING CONTRACTORS

Building Contractors are advised that the August issue of the Journal of the European Economic Community will carry an advertisement with detailed information inviting Building Contractors to apply to be placed on the list of selected tenderers for the proposed new Chancellor Building and Extension and Alterations at the existing Embassy premises of the Federal Republic of Germany in London.

NOTICES

IN THE MATTER OF THE COMPANIES ACTS 1947 and 1965
IN THE MATTER OF
LANE FOX & COMPANY LIMITED
Registered Office and Business Address: 21/23 Chancery Street, London EC2Y 4EP.
NOTICE IS HEREBY GIVEN pursuant to Section 283 of the Companies Act, 1947, that a MEETING of the CREDITORS of the above-named company will be held at the Chartered Assurance Institute, 20 Abchurch Lane, London, E.C.4, on 28 July, 1975, at 11 a.m. for the purpose of considering the proposed liquidation of the company and for the purpose of the said meeting the Board of Directors of the company has resolved that the said meeting shall be held at the said Chartered Assurance Institute, 20 Abchurch Lane, London, E.C.4, on 28 July, 1975, at 11 a.m. for the purpose of considering the proposed liquidation of the company and for the purpose of the said meeting the Board of Directors of the company has resolved that the said meeting shall be held at the said Chartered Assurance Institute, 20 Abchurch Lane, London, E.C.4, on 28 July, 1975, at 11 a.m. for the purpose of considering the proposed liquidation of the company and for the purpose of the said meeting the Board of Directors of the 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Building and Civil Engineering

Solar house project

SINCE THIS page first reported on the Loughborough/Pilkington solar house project last March, a good deal of instrumental testing of working models has been carried out and university and company scientists are now convinced that the design could cut central heating bills by as much as 80 per cent., which is far more than originally anticipated.

At Pilkington in particular, a 1:1 scale model has been evaluated and it is calculated that a three-bedroom semi built on this principle would have its heating costs reduced from an annual £39 to as little as £20 and certainly no higher than £40.

As reported earlier, there is a project afoot to carry out a major practical evaluation of the design based on the construction of nine new and five conventional bungalows for elderly couples on a Higher Bebington, Merseyside, site.

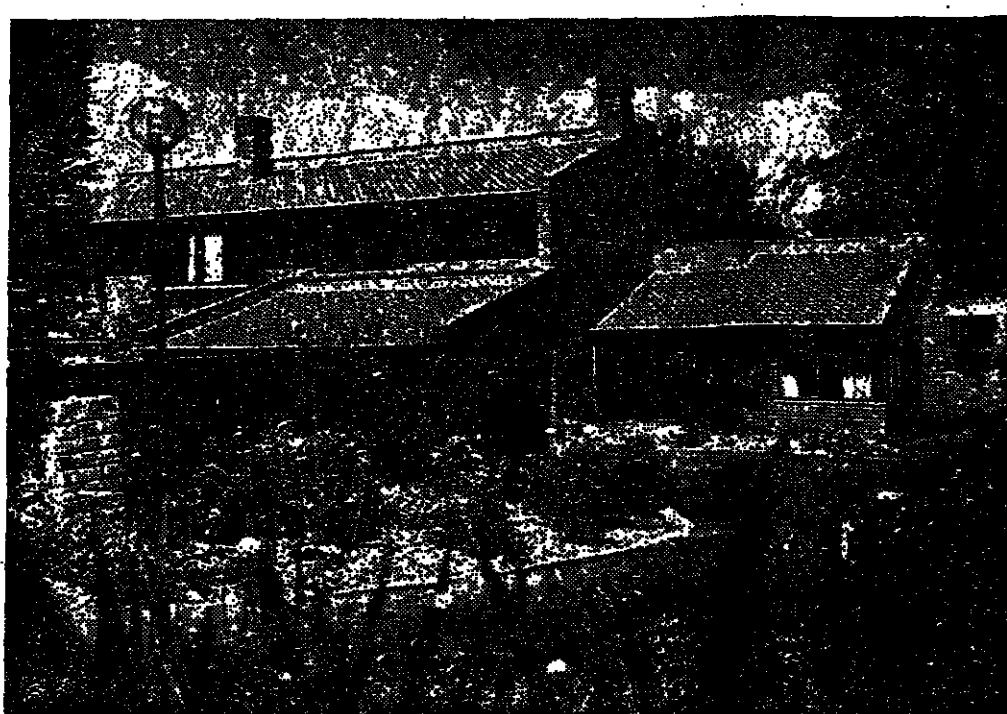
The Housing Corporation is expected to contribute some £140,000 to the scheme which was initiated by Pilkington and Loughborough University in conjunction with Merseyside Improved Housing. A start is expected in early autumn. Construction will be in tradi-

tional cavity wall style with engineering brickwork only on the solar wall which will be built with an outer double glazed skin to trap solar heat. Cavity walls will be filled during construction with Dritharm, a glass fibre material treated with a water repellent.

Sealed double glazing and a warm air heating system drawing its energy from the solar wall will be featured. Excess heat will be stored in roof spaces and overheating in summer will be prevented by natural convection.

One each of the solar and conventional houses will have a solar water heater panel in the roof and the company is at present evaluating a number of designs of such panels from the U.S., Japan and Australia against one of its own.

Pilkington has now given a tentative building cost figure on the basis of widespread adoption of the design by local authorities. It is around £8,500 averaged over, say, 1,000 housing units or more. It has to be remembered, however, that it is early days yet and that the 60 to 80 per cent. saving in house heating costs could well go hand in hand with commensurate savings in domestic hot water costs.



Seven awards and fifteen commendations have been made in the RIBA Architecture Awards for 1975, announced today.

Sir Hugh Casson, in his introduction to the report, writes: "Architecture is a long word which has too often made the art of building... into a professional mystery or... a popular target of abuse. It is important therefore that... the many good buildings that continue to be completed should not be overlooked."

Among these is the award winning scheme for a vicarage, parish hall and offices for the ecclesiastical authorities at Tring. The jury considered this to be a first class example of uniting new work with old, the existing

vicarage built in 1826 in "Jacobean revival manner having been thoroughly restored at the same time as part of the scheme." The illustration shows the south view of the new vicarage, in brick and dark tiles. It was a complicated operation involving the finding of matching brickwork and adapting rendering and plasterwork to the older materials nearby.

The principal organisations concerned were the architects, Melvin Lansley and Mark (project architect Peter Gibbons) and the main contractor Fred Harrowell and Sons.

H. A. N. BROCKMAN,
Architecture Correspondent

Bison Wall Frame in £2.6m. job

LONDON Borough of Ealing has placed a £2.6m. housing contract with Concrete (Southern) using the Bison Wall Frame System, which will be constructed in association with Peter Wilkins of Ascot.

Of the total contract figure, £800,000 is for the manufacture and erection of the Bison precast concrete components.

The Green Man Lane, Ealing, stage B development is to provide homes for 553 people and represents a further stage of a major housing scheme by the borough. Stage A completed in 1973, also by Bison, was for 134 dwellings.

This latest contract (stages B1 and B2) is for 174 dwellings and consists of one seven-storey and one eight-storey block with six flats per floor and 11 four-storey blocks of maisonettes. Garaging for cars will be provided beneath the podium deck at first floor level.

£4.3m. award to Higgs and Hill

HIGGS AND HILL Building has been awarded a contract, valued at about £4.3m. for the construction of 303 dwellings with garages and parking areas, for the City of Westminster, at St. Stephen's Gardens, Site, Paddington, London.

The dwellings will be in seven blocks of from three to seven storeys in height and varying in size from a ten unit block to a 79 unit block. Generally they will be built with brick cross walls on strip foundations and will have reinforced concrete floors and roofs. The windows will mainly be of the aluminium vertical or horizontal sliding wash type with timber surrounds. Architects are J. M. Hinch and A. Selman.

Fairweather wins two contracts

TWO CONTRACTS, totalling over £1.8m., have been awarded by the Department of the Environment's Property Services Agency to H. Fairweather and Co. of the Wood Hall Building Group.

One worth £1.3m. is for the construction of laboratories and offices at the Fire Research Station at Boreham Wood, Herts. The project calls for a three-storey block with a lift and staircase link to adjoining plant rooms and boiler house, plus the construction of two two-storey blocks. Reinforced concrete frames with brick facing will be used.

The second contract valued at £455,000, is for a cooling water facility at the Military Vehicle Engineering Establishment at Chertsey, Surrey, and is an extension to a £2m. contract there on which Fairweather is already engaged.

£3.1m. award to Marriott

TO-DAY, Robert Marriott, a member of the French-Kier Group, is to start work on a £3.1m. housing contract for Northampton Borough Council. The contract is for 387 dwellings made up of houses, bungalows and flats. Traditional brickwork is to be used.

Civic centre for Boot

A £5.7m. contract for a civic centre for Oldham MBC has been awarded to Henry Boot. The contract is for phase 2 of the complex at the junction of West Street and Cheapside, Oldham.

A tower block is to be built attached to the existing office

block, containing a public hall with 10 stores of offices over. At the other end of the existing office block there will be three stores of offices with underground car parking. This building will also contain a council chamber and civic reception area.

Architects are Cecil Howitt and Partners, Nottingham. Consultant structural engineers are Andrews, Kent and Stone, Croydon. Work is scheduled for completion in February 1978.

£5m. Derek Crouch jobs

RECENT contracts worth over £5m. have been won by the Derek Crouch Group.

Three of the contracts take the form of a school for the non-shares and are for schools costing £458,000 in Scotland. Two more contracts are for an advance factory at Gateshead (Tyne and Wear) and a public library at Bolsover (Derbyshire).

The schools will be built at Cambuslang, Lanarkshire (£1,715,000), Lerwick in the Shetlands (£1,685,500) and Wishaw, Lanarkshire (£1,270,000).

The Shetlands job will call for special arrangements since a 23,500 square metres (255,000 sq ft) main building with 2,500 square feet (26,500 sq ft) of offices and an ancillary block will have to be sited on a 1,300 square feet (13,950 sq ft) plot.

A hostel is being built near the site to accommodate the men and will be used for visiting executives during the two years it will take to complete the three-storey teaching blocks and other work for the new Anderson High School.

It will be a CLASP Mark V construction project, Cambuslang too will be CLASP Mark V. The Bolsover library (£133,500) is for Derbyshire County Council. It is in a National Trust area and will be a two-storey building of traditional construction with a stone external facing to blend in with the surroundings.

The factory (£210,000) will be on the Team Valley Industrial Estate and the contract calls for the construction of a 23,500 square metres (255,000 sq ft) main building with 2,500 square feet (26,500 sq ft) of offices and an ancillary block will have to be sited on a 1,300 square feet (13,950 sq ft) plot.

Display pool for dolphins and whales

A DOLPHINARIUM is being built in Durban by Cementation (Africa Contracts) (Pty.). The contract, scheduled for completion by next February is worth £350,000.

Cementation is carrying out all the building and civil engineering involved, which includes dewatering, as part of the premises are below sea-level. In its final form the dolphinarium will have six pools, including a mate display pool and whale and dolphin holding pens with a total water volume of 3,654 cubic metres.

Initially the dolphinarium will house seven dolphins and one whale. In addition other forms of aquatic life will be displayed in auxiliary pools in the landscaped grounds opposite the existing aquarium.

This is the second South African dolphinarium to be built by Cementation in recent years, the other being at Port Elizabeth.

Oil terminal in Peru

THE EXPORT Credits Guarantee Department has guaranteed a loan of £5.3m. which J. Henry Schroder Wagg and Co., acting on behalf of National Westminster Bank, has made available to Petroleos del Peru.

The loan will help finance a contract for the design and construction of a loading jetty with associated mechanical and electrical installation awarded to George Wimpey. The jetty will form part of a marine terminal to be constructed at Bayovar and will be capable of taking tankers of up to 250,000 tons.

The terminal, scheduled for completion by the middle of 1976, is being built to receive oil from the Amazon Basin. The oil will be pumped through a trans-Andean pipeline to the northern coast of Peru.

advanced method of construction for which Cignot holds a franchise.

One of the reasons Cignot won this contract was the use of the Butler Buildings System, which it says, is probably the most advanced range of pre-engineered metal buildings available anywhere in the world.

The Schering building will be the first completed on the new extension to the Victoria Road Industrial Estate at Burgess Hill, Sussex.

Tribute to designers

THE EUROPEAN Convention for Constructional Steelwork (ECCS) has acknowledged the Bosporus Bridge as a steel structure "outstanding in efficiency, economy and aesthetics."

The award is a tribute to the work of the bridge's designers, Freeman Fox and Partners, and of the builders, the Anglo-German Bosporus Bridge Consortium of Cleveland Bridge Engineering Co. and Inchtief European pharmaceutical manufacturer. It will be presented in October during ECCS's annual meeting at Torremolinos.

More work in town centres

CONTRACTS valued at over £400,000 have been awarded to Sir Robert McAlpine and Sons for additional work at two of the multi-million pound town centre contracts it is currently undertaking.

One contract, at Maidstone, Kent, calls for the specialised finishing required by the Hastings and Thanet Building Society in its new shopping precinct premises, while at King Street, Hammersmith, scene of West London's largest commercial development now in course of construction, footbridges and large car-parking areas are to be built at a cost of about £300,000.

Engineered buildings

A NEW distribution complex for Schering Chemicals, a major European pharmaceutical manufacturer, is being built by Cignot Group Contractors, using an

£1.2m. order for Bowey

CONTRACTS worth over £580,000 have been awarded to the Bowey Group.

Ralph Bowey and Son, the main building company, has won an order for two advance factories on the Tynemouth Industrial Estate. West Chirton North under a £250,000 contract from English Industrial Estates Corporation. This company is also to start work soon on a new school at North Shields costing £108,000 for North Tyneside Metropolitan Borough.

New work for William T. Wallace and Son, the group civil engineering company, includes a £32,500 roadworks project for the National Coal Board at Vane Tempert Colliery, County Durham, while Greener Engineering Services, another subsidiary, has won a mechanical engineering services contract worth about £82,000 for work at Chillingham Road School, Newcastle.

Further contracts totalling about £78,131 have been won by subsidiary companies Gosforth Joinery Works, Gosforth Painters, Internal Building Services and J. Ward (Electrical).

Telephone exchange extension

A £273,676 contract for an extension to Ascot telephone exchange at Sunninghill, Berks., had been awarded by Property Services Agency to Y. J. Lovell (London).

The extension will consist of a two-storey and basement wing, a two-storey wing with open ground floor, and alterations to the existing building at ground and first-floor levels. A reinforced concrete frame will be used with brick infill panels and metal-framed glazing.

IN BRIEF

Two contracts, worth a total of £3m., for work in Glastonbury, Somerset, and Pontlandfrith, South Wales, have been won by Nott Brodie and Co. At Glastonbury, the sewage treatment works is to be extended at a cost of £1.5m. Also costing £1.5m. is a contract for 148 homes at Pontlandfrith for Lelwyn Borough Council.

The 50th year of precision measurement of movements in the structure of St. Paul's Cathedral is being commemorated this week by a small exhibition in the North Transept, of the instruments and equipment used, and the record drawings prepared during this period. Freeman Fox and Partners have been in charge of carrying out the survey work since 1935 and members of the staff will be on duty during the exhibition.

R. J. P. Nicklin and Co. is to run two courses on the "Quality Assurance of the Protective Treatment of Marine Structures." The first will be held in London from September 22 to 24 and the second from October 14 to 17, in Amsterdam. Details can be obtained from Nicklin at 305 Glossop Road, Sheffield S10 2HL.

A £500,000 contract to build 70,000 sq. ft. of warehouses with offices has been awarded to John Laing Construction, Midlands Region, by Grosvenor Estate Commercial Development.

Cable Trust Limited

Interim Report (unaudited) for the six months ended 30th June, 1975

Earnings	Six months ended 30th June	1975	1974
Gross Revenue		£4,497,000	£3,768,000
Group earnings before taxation		£4,077,000	£3,360,000
Taxation		1,573,000	1,216,000
Group earnings after taxation		£2,504,000	£2,144,000

Interim Dividend

The Directors have declared an unchanged interim dividend of 1.4p per stock unit absorbing £1,107,445 and payable on 30th September 1975 to stockholders on the register on 29th August 1975.

Assets	30th June 1975	31st December 1974
Investments at market value or valuation	£120,791,000	£74,533,000
Net assets	£121,218,000	£73,790,000
Net asset value per stock unit of 25p	153½p	93½p
Net asset value per stock unit of 25p allowing for full conversion of Loan Stock	151½p	94½p



AN ELECTRA HOUSE COMPANY

This advertisement is issued in compliance with the requirements of the Council of The Stock Exchange.

WALLPAPERS LIMITED

(Incorporated in the Republic of Ireland under the Companies' Acts, 1908 to 1963)

SHARE CAPITAL

Authorised £		Issued and Fully paid £
35,000	6% Cumulative Preference shares of £1 each	35,000
170,000	Ordinary shares of 25p each	169,637
<u>205,000</u>		<u>204,637</u>

Application has been made to the Council of The Stock Exchange for the whole of the issued share capital (including 500,000 Ordinary shares issued, credited as fully paid, as consideration for the acquisition of The Walpamur Company (Ireland) Limited) to be admitted to the Official List-Irish. Arrangements are being made for the placing of 60,000 of the above-mentioned shares issued as consideration.

Particulars of the company are available in the statistical services of Ertel Statistical Services Ltd. and Moodies Services Ltd., and copies may also be obtained during usual business hours on any weekday (Saturdays and public holidays excepted) up to and including 15th August, 1975 from Dudgeon, 25 Suffolk Street, Dublin 2 and The Industrial Credit Company Limited, 26 Merion Square, Dublin 2.

These Bonds have been sold. This announcement appears as matter of record only.

U.S. \$ 50,000,000

EUROPEAN COAL AND STEEL COMMUNITY (ECSC)

8 1/4% BONDS DUE JULY 1, 1982

Banque de Paris et des Pays-Bas
Banca Commerciale Italiana
Amsterdam-Rotterdam Bank N.V.
Banque Internationale à Luxembourg S.A.
Credit Suisse White Weld Limited
Deutsche Bank Aktiengesellschaft
First Boston (Europe) Limited
Kreditbank S.A. Luxembourgeoise
Kuhn, Loeb & Co.
Lazard Frères & Co.
Société Générale de Banque S.A.
S.G. Warburg & Co. Ltd.

Algemeene Bank Nederland N.V.
Bank of America International Limited
Bank Mees & Hope N.V.
Banque de l'Union Européenne
Banque Française du Commerce Extérieur
Banque Générale du Luxembourg S.A.
Banque Nationale de Paris
Banque de Paris et des Pays-Bas (Belgique) S.A.
Banque de Paris et des Pays-Bas pour le Grand-Duché de Luxembourg S.A.
Banque Populaire Suisse (Underwriters) S.A.
Banque de l'Union Européenne
Berliner Handels- und Frankfurter Bank
Caisse Centrale des Banques Populaires
Commerzbank Aktiengesellschaft
Crédit Commercial de France
Crédit Lyonnais
Daiwa Europe N.V.
Deutsche Bank Aktiengesellschaft
Dresdner Bank Aktiengesellschaft
Effectenbank-Warburg Aktiengesellschaft
Goldman Sachs International Corp.
Istituto Bancario San Paolo di Torino
Kreditbank N.V.
Lazard Frères & Co.
Merrill Lynch, Pierce, Fenner & Smith Securities Underwriter Limited
Morgan Grenfell & Co. Limited
Norddeutsche Landesbank Girozentrale
Pierone, Heideking & Pierone
J. Henry Schroder Wagg & Co. Limited
Société Générale
Strauss, Turnbull & Co.
Swiss Bank Corporation (Overseas) Limited
Veritas- und Westbank Aktiengesellschaft
Banca Nazionale del Lavoro
Bank Gutzwiller, Kurz, Bungeger (Overseas) Limited
Banque de Bruxelles S.A.
Banque Européenne de Tokyo
Banque Française de Dépôts et de Titres
Banque de l'Indochine
Banque de Neufville, Schlumberger, Mallet
Banque de Paris et des Pays-Bas (Belgique) S.A.
Banque de Paris et des Pays-Bas pour le Grand-Duché de Luxembourg S.A.
Banque Rothschild
Banque de Suez et de l'Union des Mines
Banque Worms
Baring Brothers & Co., Limited
Blyth Eastman Dillon & Co. International Limited
Caisse des Dépôts et Consignations
Citicorp International Bank Limited
Compagnia Finanziaria Interbancaria S.p.A.
Crédit Industriel et Commercial
Crédito Italiano
Crédit du Nord et Union Parisienne - Union Bancaire
Deutsche Girozentrale-Deutsche Kommunalbank
Dillon, Read Overseas Corporation
Europäische Bank Aktiengesellschaft
Hambros Bank Limited
Hill Samuel & Co. Limited
Kiddier, Peabody International Limited
Kreditbank N.V.
Lazard Frères & Co. Limited
Loeb, Rhoades & Co.
Manufacturers Hanover Limited
Morgan & Co. International S.A.
Nomura Europe N.V.
Orion Bank Limited
Paine Webber Jackson & Curtis International S.A.
Salomon Brothers
Samuel Montagu & Co. Limited
Skandinaviska Enskilda Banken
Smith, Barney & Co. Incorporated
Société Générale
Société Générale Alsacienne de Banque S.A.
Svenska Handelsbanken
Sumitomo White Weld Limited
Union Bank of Switzerland (Securities) Limited
Warburg Paribas Becker Inc.
Westdeutsche Landesbank Girozentrale
Yamatichi International (Europe) Limited

FINANCIAL TIMES SURVEY

Monday July 28 1975

IRAN

Determined to become a regional superpower and a self-sufficient industrialised country before its oil runs out, Iran is rushing headlong into the 21st century. It is committed to spending a maximum amount of its revenue on development. But it must beware of trying to do too much too fast.

Human limits to growth

ON A seemingly limitless tide of oil revenue Iran has begun to lurch forward fast to the 21st century by when, without the reassuring buoyancy provided by petroleum revenue, it must achieve sufficient momentum to consolidate its position and sustain new growth. The quintupling of oil prices in 1973-4 has given this country—the most significant of the Middle East producers in terms of population, history and nationhood—a unique opportunity to join at some stage the league of fully industrialised states on a permanent basis and establish that "Great Civilisation" which it is the Shah's ambition to create.

As a patriotic visionary, he has more problematically laid down the objective of turning Iran into the 5th most powerful nation in the world by 1990. While that aim may be more inspiring than realistic, this monarchical State does have a wealth and a potential which have already singled it out as

the dominant force in the region and one of the most advanced countries in the developing world.

This alone explains and justifies the attention paid to the Shah internationally quite apart from his vital position in the Organisation of Petroleum Exporting Countries.

Courted by the world's leaders, the Iranian Monarch must sometimes reflect upon the changes in his fortunes. Nearly three-and-a-half decades ago as a young and diffident Crown Prince he experienced the pain and indignity of seeing his father Reza Shah packed off into exile and his country occupied by the British and the Russians.

Good feelings

This is one historical reason why the Shah is amassing sophisticated weaponry at a rate which, if continued would without doubt make Iran the 5th biggest power in the world by 1990 by that criterion alone. Now in the mid-1970s he is under no illusions that in the long run the Soviet Union does not have any basic good feelings towards anti-Marxist regimes such as the Iranian Monarchy, notwithstanding the fact that it is prepared to supply its latest troop carriers and heavy artillery in return for the gas piped from the Khuzestan oil fields.

That most recent order showed that the Shah does not wish Iran to be seen as a "military client" of the U.S., but it is inevitable that the West should see his regime as a pro-

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tective bulwark of its vital oil supplies. The other basic justification for his military build-up is to protect primarily Iran's own "jagular vein."

From the geo-political point of view, there was logic in the strategy of extending that commitment to the Indian Ocean where it is difficult to argue with the Shah's assertion that "we have more rights than many non-riparian States."

Iran's active participation in Sultan of Oman's struggle against the Marxist insurgents in Dhofar falls within the same context, but is a more sensitive issue. Much more so would be a military intervention on the other side of the Persian Gulf to save the United Arab Emirates—at present only a theoretical and unlikely possibility. The Oman involvement has in no way checked the Shah's growing rapport with the Arabs. This was symbolised by his State visit to Cairo earlier this year and has been based on the pronounced shift in Iranian support for them in the confrontation with Israel.

It is the magnitude of Iran's bristling armaments which has however, the array of sophisticated weapons procured or ordered does raise questions about the Shah's policy, by aggravating Arab suspicions and intensifying the flow of weapons to neighbouring Iraq, could be an actual cause of instability. On this front, however, the signing of the agreement in March with the Ba'athist regime on solving all outstanding differences between the two countries should be seen as the most positive development in the region in the three years since British withdrawal from the Persian Gulf created an uncertain vacuum there.

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Now more fully appreciative of the economic and social imbalances within the country, the Government is attacking these problems, not the least by a sensible policy of administrative decentralisation. A modest start has been made towards creating a welfare State with such decrees as those extending free primary education to the 5th grade and another providing free public health care. But these imperial fiat can only be as effective as the availability of teachers and health workers in the rural areas, a shortcoming only partially met by the admirably conceived student Education and Health Corps.

Specifically, there is the need to develop as fast as possible export industries able to maximise the comparative advantage deriving from abundant reserves of gas and mineral resources. Already Iran has built up a wide, variegated industrial base and the concentration on petrochemicals, steel, copper and aluminium will increase its dimensions vastly. Unlike Saudi Arabia the country has a big artisan tradition and aptitude for industrial work.

Iran has enjoyed a growth record which is the envy of the developing world with average per capita income doubling during the 1968-73 Fourth Plan period and rising by another 60 per cent or so in the past few years to reach nearly \$1,350. But in the rural areas, where the majority live, there exists a population, with a high rate of illiteracy and a low income, as yet not capable of providing the kind of domestic base required if Iranian industry is

to become an international force. Meanwhile, agricultural production has lagged behind to the extent that Iran, which cannot ever hope to be self-sufficient in foodstuffs, is very far from realising its optimum performance.

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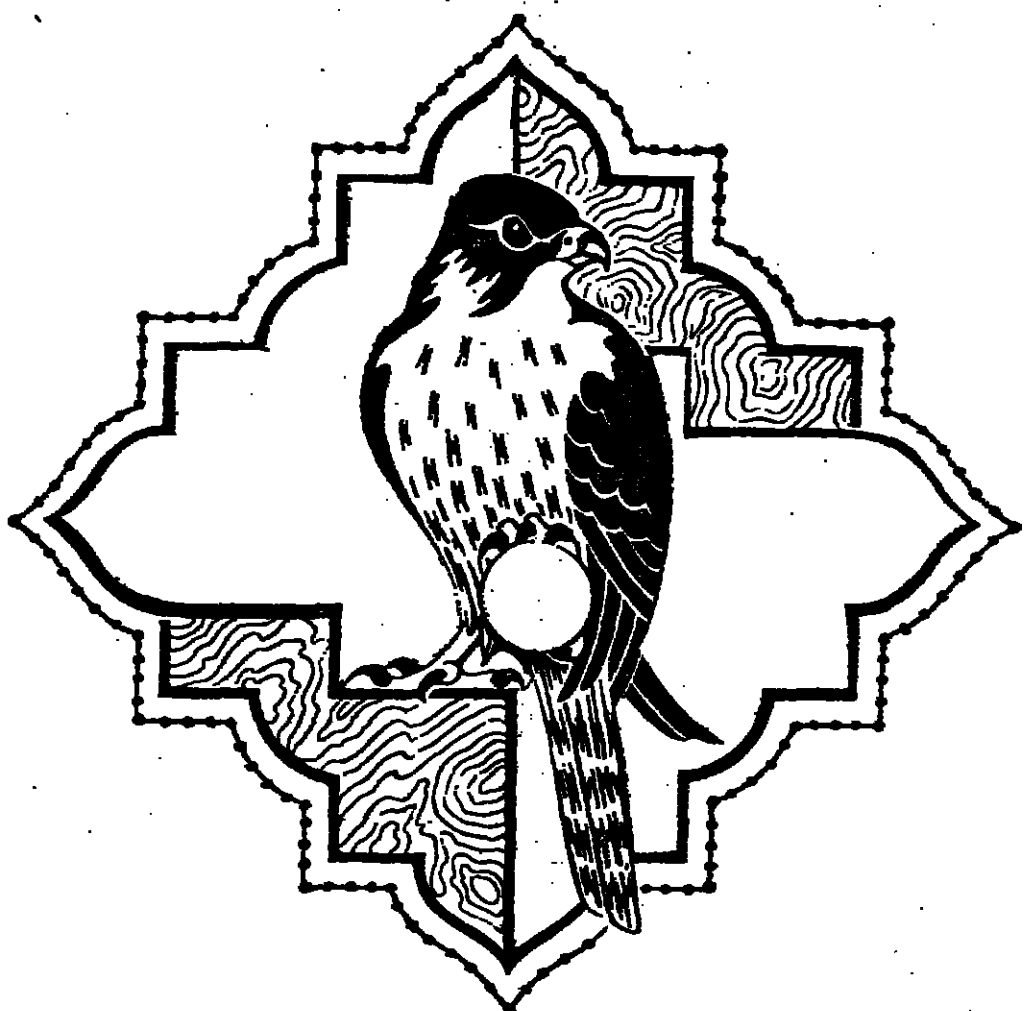
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BASIC STATISTICS	
Area:	628,000 sq. miles
Population:	31.96m. (1974 est.)
GNP (1974):	\$44bn. (est.)
GNP per capita:	\$1,344 (est.)
TRADE (1974):	
Imports:	\$6.02bn.*
Exports—petroleum:	\$23.3bn.*
—other:	\$700m.*
Imports from U.K.:	\$278.6m.
Exports to U.K.:	\$513.3m.
CURRENCY:	£1 = 144 rials
*As recorded by IMF	

enthusiastic support for the Government and its policies than has been apparent hitherto. This is the aim of the new sole Rastakhiz ("National Resurgence") Party which is to be the vehicle for more effective participation in the Shah and People's Revolution, as the White Revolution has been renamed. The sudden announcement of its formation spelt the end of the old moribund two-party system in which the Majlis (Lower House) duly ratified legislation but did little or nothing to influence its content.

As an effectively absolute Monarch sincerely believing in the mystic union between himself and his people, the Shah has consistently—and perhaps paradoxically—called for constructive debate and positive criticism. With anything more not tolerated and the difficulties of drawing the line, Iranians have been too inhibited to give

CONTINUED ON NEXT PAGE



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 * Present middle rate of US\$ to Rials is 1 US\$ = Rls. 66.645.

IRAN II

The economy has gone through 18 months of very high growth and spending and is now starting to show the strain. The standard of living of most Iranians has undoubtedly improved substantially but inflation is becoming a problem, a massive import bill has pared down the payments surplus and the authorities are having to apply the brakes — albeit very gently.

Economic heat

SUMMARY BALANCE OF PAYMENTS \$m.

	1974-75	1973-74	*1974-75
Current receipts	1,972.7	2,337.2	1,972.7
Current payments	-1,502.4	-1,502.4	-1,502.4
Net current account	470.3	834.8	470.3
Net capital account	592.2	893.3	592.2
Errors and omissions	4.2	27.3	4.2
Incidental receipts/payments	61.9	236.2	61.9
Overall balance	1,069.0	1,991.6	1,069.0

* 1974-75 figures still preliminary.

AFTER A long conversation reflected directly in the huge about the economy an Iranian leap forward in national income, up 42 per cent (At constant prices) from \$25.8bn. to \$36.7bn. Per capita income rose from \$812 to \$1,344, a level has to be doubly alert. This, of course, is a truism, but it has been brought home very forcefully in recent weeks. The economy has gone through 18 months of unprecedented high growth and spending, but now the problems generated by such rapid development are coming to the surface.

The economy has become overheated, serious bottlenecks have developed and inflation at home and abroad has pushed up the cost of investment. Accordingly, the brakes are being gently applied and authorities are proceeding with a more sober appreciation of the realities. The realities are that funds are not limitless, year Iran had total bilateral commitments of \$10bn.

Technology

Iran last year suddenly found its economic status dramatically transformed by the rise in the price of oil. From being merely prosperous almost overnight it was elevated to being very wealthy, enabling the Government to almost double the investment targets for the Fifth Five-Year Plan, 1973-78. The Plan targets were revised from \$36bn. to \$69bn., with the target growth rates for agriculture raised from 5.5 per cent to 7 per cent, industry from 15 per cent to 18 per cent, and 11.5 per cent to 16.4 per cent per annum. At the same time budget expenditure for the Iranian year, 1974-75, was raised from \$16.1bn. to \$30.8bn.

Receipts from the oil sector exports showed a staggering change from \$5.08bn. to \$18.65bn., an increase of over 265 per cent. This increase was

reduced to keep pace with rising demand. The old restrictions on the employment of B/D foreigners were relaxed as it was realised that there was a move. In June the Director-General of the Plan, Mr. Abdol Majid Majidi, announced that private industry clamoured for in future all Government credit to finance imports, which jumped from \$5.9bn. to \$11.8bn. and to invest in new plant and machinery. Credits to the private sector from the banking system rose by 42 per cent and money supply increased by an incredible 61 per cent — the highest rate recorded since World War II.

In short the new found wealth generated a mentality of spending, fuelled by hundreds of foreign companies which flocked to Iran from the depressed economies of the West in the hope of business. The full impact of this boom began to be felt from January onwards. Almost 60 per cent of the increase in money supply took place in the last three months of the Iranian year and the process accelerated through into 1975. It became clear that the authorities had to act. The IMF staff report on Iran in January commented that "an increase in domestic liquidity at a rate of over 40 per cent would accentuate the upward pressures on prices. The credit policy *vis-à-vis* the private sector seemed appropriate. An adjustment in the anticipated rate of monetary expansion would, therefore, require a reduction in the planned level for the Government's net domestic expenditures."

Pressures on prices had, indeed, been felt. The official rate of inflation of 15 per cent, though perhaps correct in relation to the declared price of goods, had in practice been bypassed due to demand outstripping supply. For instance with a six-month waiting list for the locally assembled Paykan car customers have been paying as much as \$1,000 above sale price to secure early delivery. Wages, despite guidelines of under 20 per cent, have gone up by over 30 per cent in the private sector in the past year simply because employers cannot afford to lose scarce labour. Meanwhile the Government pumped upwards of \$1bn. into the economy via subsidies on essential commodities such as wheat, sugar and meat, which in turn filled demand.

With these inflationary pressures subjecting the economy to serious strain and threatening to erode the new oil income added to a drop of some 700,000 jobs on the employment of B/D foreigners were relaxed as it was realised that there was a move. In June the Director-General of the Plan, Mr. Abdol Majid Majidi, announced that private industry clamoured for in future all Government credit to finance imports, which jumped from \$5.9bn. to \$11.8bn. and to invest in new plant and machinery. Credits to the private sector from the banking system rose by 42 per cent and money supply increased by an incredible 61 per cent — the highest rate recorded since World War II.

Resources

Has Iran overstepped its physical and financial resources in going for such an ambitious development programme? As regards its physical resources, it certainly has not run into serious bottlenecks. Mr. Majidi in June said that the country was short of 110,000 skilled workers against only 24,000 the previous year. As seen elsewhere in the survey in the article on manpower (Page XII) there are a host of problems associated with importing large numbers of

foreigners into the country, not least of which is the question of housing shortage. The ports in addition impose limitation of their own on growth. Nominal handling capacity of Iran's main ports was under 4m. tons for non-oil goods at the beginning of the Plan. Through working continuous shifts and emergency programmes capacity is now about 12m. tons but even so ships are expected to wait a total of 16,000 days this year in Iranian ports. Then there is the problem of internal transport and distribution which is still poorly organised—though major efforts are being made to improve this. All this will take time to solve and one is forced to the conclusion that for the moment these are very real constraints on growth which could, on some estimates, retard Plan achievement by at least a year.

On the question of Iran's financial resources it seems there is an element of propaganda, aimed both at home and abroad, in reports that the country may run short of what it needs. Domestically the message has to be spread that wealth cannot be squandered while for both domestic and foreign consumption the authorities are anxious to show that imported inflation has added 30 per cent to Iran's span of Iranian oil is strictly limited. Last year total foreign exchange receipts amounted to \$39.7bn. The figure would have been higher had not the final month's oil revenues been held over due to a dispute (over the shipment of Iranian crude with Saudi crude). The foreign exchange component for imports was \$12.6bn. (including as much as \$3bn. for defence imports). The surplus enabled the Government to accelerate foreign debt repayments, setting aside \$1.3bn. for this purpose. Approximately \$800m. of this was utilised to settle outstanding debts with an interest rate of over 8.5 per cent. In addition investment abroad and loan disbursements (including foreign aid) was stepped up from a mere \$600,000 to \$2.1bn. a further \$700m. was set aside for the IMF oil facility (though only \$500m. is believed to have been taken up). Meanwhile payment for the bulk of imports switched to cash basis. Overall Iran was still able to record a current account surplus of \$8.5bn. setting aside \$5.2bn. for reserves. Foreign reserves, including liabilities of the banking system now stand at \$8.1bn.

But if Iran is to live within its resources the real problem is not just one of creating self-sustained growth through a broad based industrial structure. The country has to radically improve its agriculture which after all still provides the livelihood for the bulk of the population. Demand for agricultural goods and foodstuffs is growing at over 10 per cent, a year while production is increasing at as little as 3 per cent, according to unofficial estimates. This is well below projections. The rise in the standard of living and the spread of money resulted last year in a 250 per cent increase in imports of grains, 45 per cent in dairy products and 50 per cent for sugar. Admittedly there are enormous difficulties to overcome: the high soil temperature makes it unresponsive to fertilisers, over irrigation creates salinity and the weather still is the master. But unless the problem of agriculture is tackled properly, it will mean continuing increases in the foodstuffs import bill, and more importantly it will accelerate the drift to the cities trailing social problems in its wake.

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Robert Graham
Middle East Correspondent

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Limits

CONTINUED FROM PREVIOUS PAGE

This has made for a degree of cynicism which may be seen as accounting for the invitation to "Stateless traitors" not registering for the Rastakhiz that they could leave the country.

In the event 52 per cent of those eligible registered with the turn-out in the well-organised and fair elections to vote for the officially approved candidates varying from 71 to 82 per cent according to area. Given the diversity of the country—its scattered population, including nomadic tribes, and all its ethnic-linguistic minorities—the Government was entitled to feel encouraged by the result. It could point to two other healthy aspects of the poll: the preference shown for local men and the choice of candidates from lower down the social scale—in particular teachers and smaller farmers. As yet it remains to be seen how the Rastakhiz will evolve as a forum for much-needed free discussion of policies and positive debate.

Historically, Iran has gone through periods of strong autocratic rule from the centre and others when centrifugal forces threatened anarchy—as they did at the end of the Qajar dynasty before Reza Shah, and again in the early 1950s when the demagogue Dr. Mossadegh rose to power. Iran is little different to some other states in the Middle East in finding it difficult to reconcile freedom and

authority nor in having a large internal security service, though SAVAK is more all-pervasive and ruthless than most. Certainly, its activity has increased in response to the terrorism of the last few years, the extent of which can be seen from the fact that since 1970 there have been publicised no less than 86 executions on this account and 57 deaths in shooting affrays, including 10 security men. Except for antagonism to the system the motivation of this violence remains as obscure and confused as the official description of it as "Red-Black reaction" would imply. From available evidence it seems that much of it is inspired by extremism of a traditionalist, and religious nature. More worrying, however, is the also ill-defined, but open, discontent on the campuses, some of which were immobilised for long periods last winter.

In its dash for the 21st century Iran undoubtedly will experience not only social growing pains but also economic strains like those which have become so acute this year. Iran should succeed in becoming a viable industrialised country without dependence on oil. In its drive to become one, however, the constraints will be human and social rather than financial. The country may be forced to recognise that it cannot achieve all that it wants as fast as it wants.

Richard Johns

IN IRAN

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IRAN III

Elections under the one-party system have just taken place with the result that many of the old faces have disappeared from the Majlis and Senate to be replaced largely by new middle class politicians. The one-party system has only met real opposition from religious elements.

Political switch

ELECTIONS HAVE just taken place with so little fuss that one is tempted to ask whether the whole exercise was a non-event. So much is happening in this boom country at the moment outside the political sphere that the elections seemed but a brief interruption in the more important process of economic development and social progress. But it would be wrong to write off the elections as irrelevant. They were the country's first under a single party system—the Rastakhiz (national resurgence) Party—and resulted in a substantial number of fresh faces being elected to parliament within an entirely new and still evolving political framework. Granted the old vertical nature of power remains with the Shah at the top still tightly controlling everything, but gone is the deference to Western-style democracy, with a government party and an opposition party, the single party system in its place is probably a more accurate reflection of the political reality.

Turnout

The authorities went to lengths to make the elections, which took place on June 25, fair, and they almost seemed happy to have one or two ballot box irregularities exposed. Moreover, compared to previous elections in Iran these were smooth and the opposition muted although this does not mean there has been no opposition. Of the total electorate of some 13m, it is estimated that about 6.5m. persons registered to vote (a process which involved the stamping of one's birth certificate). Even now over a month after the ballot the precise turnout remains unknown. According to the Interior Minister Mr. Jamshid

Amouzegar, between 70 and 90 per cent. of those who registered voted. This means that turnout was between 36 per cent. and 47 per cent. of the electorate. By Western standards this is a low poll but by previous Iranian elections it is relatively high. Although information on the poll is scant to say the least it is important nevertheless to assess what sections of the population voted and whom they voted for because this does give some clue as to the direction of the Rastakhiz Party and those persons who form the central core of political support for the Shah.

Originally there were over 7,000 applications by candidates who sought to be one of the three persons permitted to contest each of the 268 seats in the lower house (Majlis). Although incumbents from the two former parties—Iran Novin (the Government party) and Mardom (the Opposition)—did contest seats, the most remarkable feature was that over 80 per cent. of those elected were new to Parliament. The same pattern was repeated in voting for the 30 elected Senate seats: another 30 being chosen by the Shah. This means that virtually all the rich and powerful members of the now defunct Iran Novin party have been excluded. In their place are an inexperienced collection of persons drawn from medium-size farmers, teachers, the professional classes, some businessmen and a few workers representatives—the latter would have been in even greater numbers had it not been that their powerful vote for the 28 seats in Tehran could have captured almost all the seats, and accordingly in some hectic last-minute negotiations they were invited to vote for selected candidates. In effect what has happened,



The Shah and Empress Farah.

albeit in embryo, is formal recognition of the growing importance of the middle class, the people benefiting most from and with the greatest stake in, the success of the Shah's revolution. If this outcome is accidental, it also seems to have fulfilled one of the Shah's aims in disbanding the two-party system in March: namely to give a gentle stirring to the political scene and bring in some new blood favouring the growth of the middle class.

But the disbanding of the two parties, without any apparent forewarning, remains a puzzling move. On the surface at least it represents a remarkable break with the Shah's previous thinking. In his book "Missions for my Country," the Shah refers to the

"strait-jacket" of one party to the effect that those who did rule, and he points out the not wish to join could expect no situation in Communist countries and anyone who tries which "allow only one opposed the party could pack political party" and who hold their bags and leave the elections in which "the voter country. As one well placed Iranian put it: "Rastakhiz lays down the minimum requirements for loyalty to Iran, the constitution, the monarchy and the Shah's revolution." So far that the change stems in part some 9m. persons have from his publicly voiced disapproval with democracy as he sees it practised in the West what this really means since to-day. In turn it seems he was also anxious to adopt a system factories, offices and even schools inviting people to sign

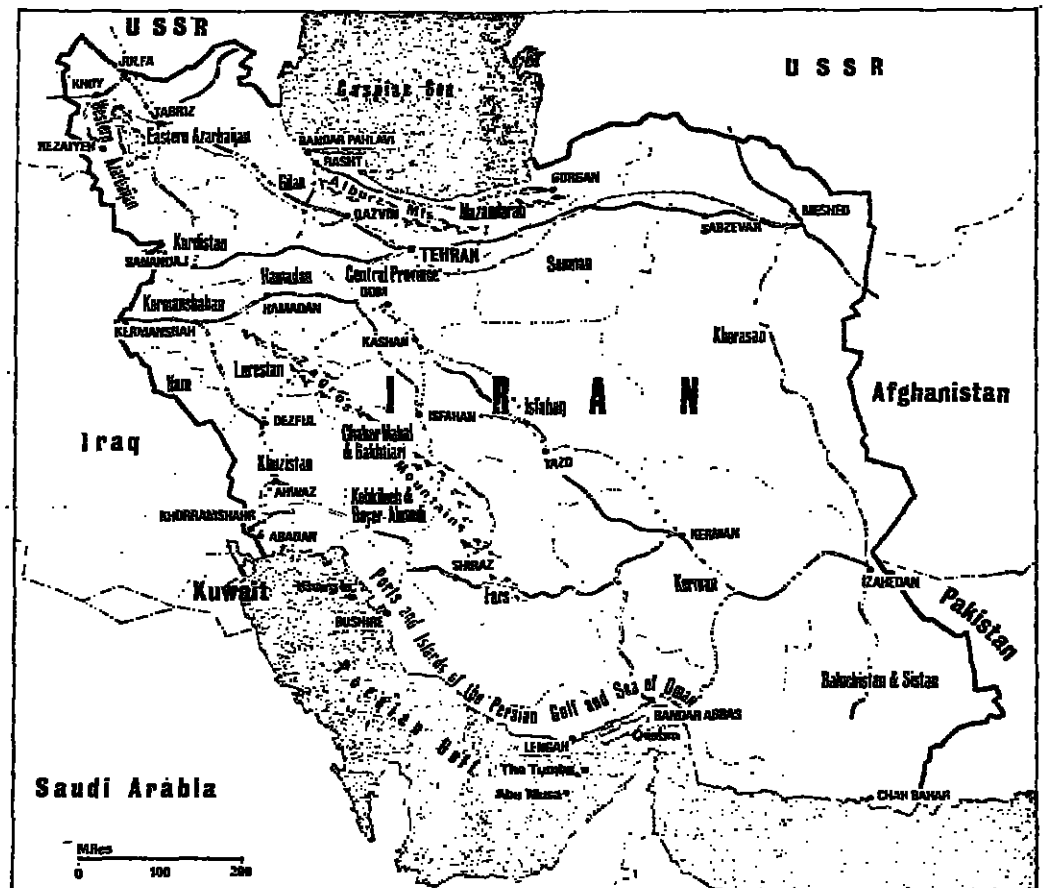
anything to the West or require judgment from it. As it was, under the old system the opposition had never really functioned as such.

However, the unexpectedness of the decision to create Rastakhiz suggests that timing was significant. The decision was announced shortly after the Shah had returned from holidaying in Switzerland and in the wake of a massive Iran Novin jamboree-like congress at which the Prime Minister, Mr. Abbas Hoveida, was elected as party secretary. This was the first time in almost a decade that the premiership and the post of party secretary had been held by one and the same person. Thus the sudden disbanding of Iran Novin, along with Mardom, eliminated what some observers regarded as a growing power base. At the same time, with the prospect of the elections only four months off, it also erased the possibility of any embarrassment to the Government party in the poll results. In by-elections held last year Mardom had shown substantial gains. When the Shah announced the formation of Rastakhiz he invited all Iranians to join; but he also issued a blunt warning

Realism

Such a direct call to participate was a rude awakening to many of the more educated Iranians who had chosen to ignore the old bi-party system. Moreover, it was an uncomfortable jolt to those who had formerly enjoyed a degree of power and status in the now defunct Iran Novin. But it seems with a mixture of cynical acceptance and realism the latter two groups have accepted the new system.

The main opposition has come from the religious elements, dissident intellectuals, and the students, while it seems to have made little difference to the position of the underground urban guerrillas who continue to rear their head. The Rastakhiz Party is a clear rejection of the traditional Islamic ideas which foster suspicion of foreign influence and modernism. A number of religious leaders have not hesitated to express their rejection of the party. This rejection of the Shah's modernist path by the religious community paves the way for an alliance of the extreme right with the extreme left—branded here in the Press



as "Islamic-Marxism."

During the elections there were serious disturbances at the religious city of Qom which were described as instigated by "Islamic-Marxists." With almost half the population still illiterate and religious, this "Islamic reaction" is probably the most serious single force the authorities have to cope with in developing the country. A sizeable portion of the urban guerrilla movement—which this year has claimed the lives of two U.S. Air Force officers, an American consular employee, a NIOC official and a senior member of the security forces—is believed to be composed of the extreme Right.

Another area of indifference has come from the tribes which represent more than 2m. potential voters but who by tradition have maintained their independence from the political scene. But even this and other opposition does not detract from the potential of the new order now emerging, formalised in the Rastakhiz Party. Land reform, the breaking up of the big landed estates in the 1960s, curbed the power of the landlords. Their new wealth, derived from the booming economy and property in the

cities is unlikely to develop into any powerful political lobby now that the Shah is pressing ahead with plans for distribution of shares to workers. This check also helps to clear the way for the middle classes to benefit within the new system.

Movement

What then will be the function of the Rastakhiz Party? Rastakhiz has been described as more of a movement than a party. Parallels have been drawn with Egypt's Arab Socialist Union or Tunisia's Neo-Destour Party. The party is going to be based on a cell or chapter structure with cells varying in size, depending on the local area concerned, with a minimum of 100 members and a maximum of 400. In Tehran, for instance, this could mean anything from 3,000 to 12,000 different cells which would be represented by a 55-man executive board. The party's guide-lines have been described as "unity without uniformity"—that is, internal debate is healthy so long as it is not divisive. Certainly it seems that the Shah feels that a one-party system is a stronger framework in which to carry out a con-

structive debate. To promote greater debate two separate "wings" have been formed. These two wings have been called the "constructive liberals" and the "progressive liberals," headed respectively by the Finance Minister, Mr. Hushang Ansary and the Interior Minister Mr. Jamshid Amouzegar. Although these sound confusingly similar, these two wings do reflect a fairly genuine division of opinion within the establishment—between those who believe in maximum growth despite the consequences, and those who believe that growth is important but too high a price should not be paid; the former group being represented by Mr. Ansary and the latter by Mr. Amouzegar.

This debate over growth is the absolute key to the future development of Iran. Until now it has received scarce public airing with parliament too timid to do little more than voice its support for the Shah. The optimists believe that the Rastakhiz can provide the framework for such a debate; the cynics are waiting on the sidelines to prove them wrong.

Robert Graham

Acrowsaz: Proof in depth of Anglo-Iranian collaboration

This project is a joint venture operation between Adamson & Hatchett Limited of the Acrow Group, the Industrial Development and Renovation Organisation of Iran, and the Industrial Mining and Development Bank of Iran.

The Acrowsaz factory currently in building at Ahwaz Khuzestan, Iran, is designed to give Iran its own Class 1, medium/heavy fabrication capability. The factory will produce heat ex-

changers, columns, pressure vessels, reactors and any other general fabrication requirements for the oil, petrochemical, gas and allied industries.

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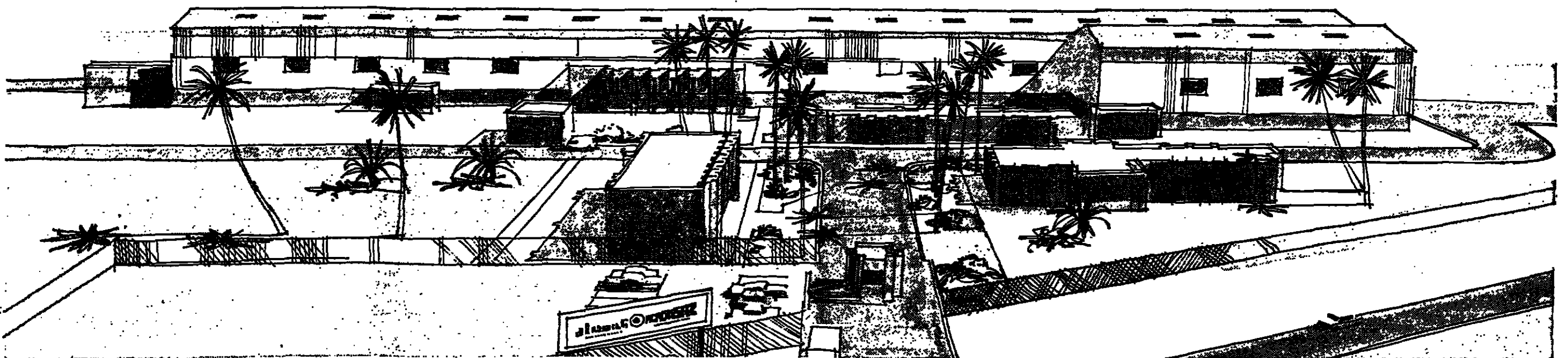
with the most advanced fabrication equipment. There will be an extensive stress relieving plant, laboratories, machine shops, and X-ray equipment for non-destructive testing. Lifting capacities for Phase One will be 50 tons.

Phase Two of the Ahwaz project includes two additional fabrication bays, each over 200 metres long by 20 metres wide. When these are completed the lifting capacities will have been increased to 100 tons.

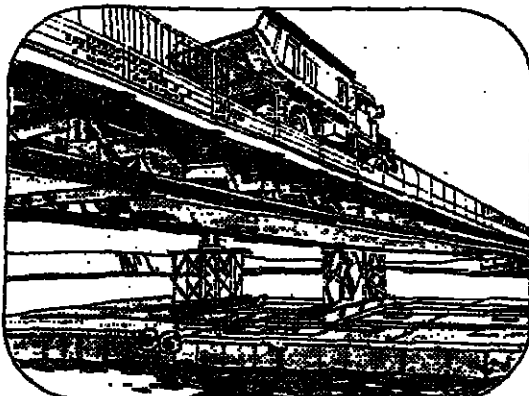
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major advantages for Iranian users, notably in avoiding heavy freight charges. By agreement the factory is able to export to any country outside Iran and is ideally suited for delivery to countries in the Persian Gulf area.

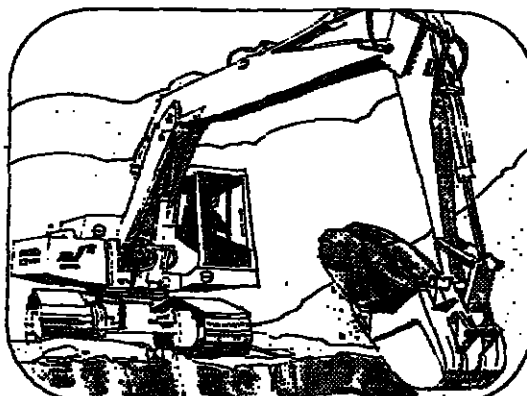
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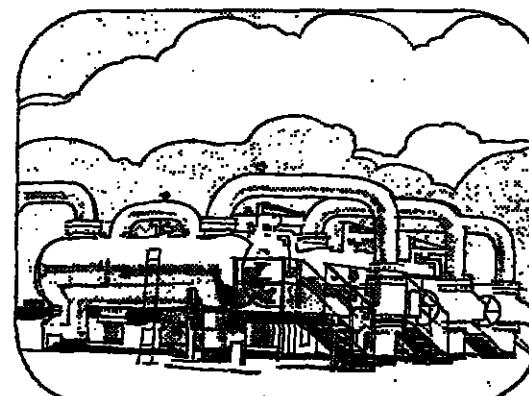
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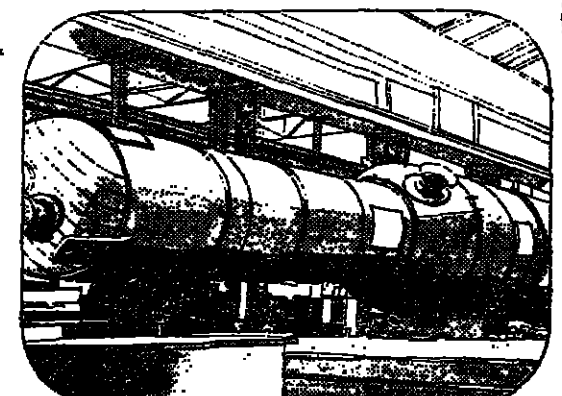
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In revising their 5th Plan the Government has
been forced to take an urgent look
at priorities and is concentrating on a
programme of development despite the
risks of inflation and dislocation.

EVEN BEFORE the revised version of the 5th Plan spanning the years from 1972-73 to 1977-78 has been officially published and presented to the Majlis, the Iranian Government has been forced to take a searching look at priorities. No one should be surprised at that. In keeping with the five-fold increase in oil prices in just over a year from October 1973 to November 1974 the original version underwent a dramatic change with the total investment target doubling from 2,416,100 rials (\$36.9bn.) to R.4,832,200 (\$70.5bn.) and the State's allocation rising even more from R.1,233,000 to R.2,668,500 (\$40bn.). The annual growth target was adjusted upwards from 11.4 per

cent. to 25 per cent. in real terms. Instead of contemplating loans from abroad of some \$6.5bn. to finance the Plan it became possible to envisage a total cumulative surplus of \$17.7bn. The urgent pre-occupation about creating 1.43m. new jobs was translated into an altogether different concern about the projected manpower shortage of 700,000.

Despite the fall in oil production below anticipated levels and the prospect of renewed borrowing, the first sentence of the new blueprint remains valid: "The quadrupling of revenues anticipated from oil during the Fifth Plan from the original \$26.8bn. to an estimated \$98.2bn. has removed financial constraints on development spending." The revenue shortfall may be seen as a temporary phenomenon with demand for oil set to revive in the coming months and a hefty OPEC rise scheduled for October.

Essentially, the review has been necessitated by the infrastructure deficiencies—in particular, ports, communications and power—and the shortage of skilled manpower. From the beginning it was foreseen that sooner or later the unashamedly ambitious development plans would be constricted by these bottlenecks—the question was when? Mid-way through the plan period it could be said that this point has been reached at a time when development spending is only just building up the momentum required if the full disbursement target is to be achieved.

Inflation

Not so clearly anticipated perhaps was the kind of inflation which would be generated by rapid growth. Both the bottlenecks and the scale of the State's current expenditure appear to have been as significant a cause of inflation—in reality running at a rate far higher than the 15 per cent. of the retail price index in 1974-75—as the higher cost of imports and the profiteering of the business community. The pace of development has strained not only the over-heated economy but also an administration which though blessed with a relatively thick layer of talent at the top, is much weaker in the middle and lower ranks.

The kind of heady, unprecedented growth experienced by Iran in the past two years would have tested any economy or administration. Official estimates show that in 1973-74 and 1974-75 respectively Gross National Product rose by 30 per cent. and 40 per cent. In current prices this would have given a total GNP of some R.290bn. (\$43.4bn.) and a gross per capita income of some R.87,500 (\$1,310). Meanwhile, imports (of goods and services) soared by 65 per cent. from \$2,990bn. to \$4,950bn. in 1973-74 and then by a further 110 per cent. to an estimated \$11.8bn. in 1974-75.

It was, of course, oil which accounted for the largest part in the rise in national income. Nevertheless, in constant terms the non-oil Gross Domestic Product grew by 13 per cent. in 1973-74 and a further 17 per cent. in 1974-75 in real terms, according to official calculations. Over the two years consumption of the public and private sector rose by 37 per cent. to account for an estimated 76.7 per cent. of GDP. In the same period savings and investment rose at a slightly slower rate overall by 33 per cent. with its share of GDP falling marginally to 23.3 per cent. Investment by the public sector was much faster recording an increase—again in constant terms—of some 20 per cent. in 1973-74 and 30 per cent. in 1974-75 while the private sector's was reckoned to have lagged behind at 10 per cent. for the two years.

In absolute terms actual development expenditure by the State amounted to some R.162m. in 1973-74 and an estimated R.450bn. in 1974-75 meaning that in the first two years of the Plan only about a quarter of the public sector credits allocated for the five years were actually disbursed. The figure highlights the difficulties that even relatively sophisticated developing country like Iran faces in maximising its oil revenues in the shortest period of time.

At the end of 1974-75 the number of unfilled job vacancies in all categories was put at 60,000. Much of this shortfall should be covered by the Ministry of Labour's crash programme. Even so it is understood that in itself the labour shortage may limit public investment to two-thirds of the \$15.7bn. originally contemplated.

Nevertheless, with the escalation of prices and the ever-increasing military expenditure the Government looks likely to spend in total about

as much as the Plan projected with current outlays perhaps superseding the 3,393,300 rials (\$50bn. rials) allocation but only about 15 per cent. in 1971 falling below its targets. Officially the word is that actual implementation may take an extra year to complete, but some close and independent observers believe that completion of the programme in its entirety could take two-to-three years longer. In practice, the review of priorities is likely to involve a delay in the start of new projects rather than a deliberate slowing down of ones being executed.

Constrictions caused by infrastructure bottlenecks may prove to have reached their most acute point this year and most determined effort now being made by the Government to open them up should ease the way for a greater volume of investment spending in 1976-77 and 1977-78. Over the full five years, however, it now seems likely to achieve a growth rate in GDP of more than 20 per cent.

For a country like Iran whose growth record over the past 15 years has been almost unique in the developing world is psychologically difficult to scale down targets. From 1962 to 1976 GDP forged ahead at an annual rate of 9.8 per cent. and from 1967 to 1972 at 11.4 per cent. exceeding the targets.

During the decade average per capita income more than doubled. And it was only half-way through the second period that any really significant increase in oil prices and production boosted the performance.

However, petroleum revenue was the essential factor behind it, with oil increasing its share of GDP from 20.1 per cent. to 27.4 per cent. over the 10-year period. Most encouragingly the manufacturing and mining sector grew at a rate of about 11 per cent. annually, although its share of GDP only edged up marginally from some 12 per cent. to 14 per cent. The big disappointment was agriculture which grew at only just over 4 per cent. marginally ahead of the increase in population but in no way sufficient to improve low standards of nutrition in rural areas.

Over the decade its share of GDP fell from 27.7 per cent. to 16.1 per cent. On the infrastructure side, water and power advanced impressively at the rate of nearly 27 per cent. a year, but transport and communications lagged behind at only 6 per cent.—a failure of which the effects are now being felt. Over the decade, it should be noted defence and security expenditure accounted for half the rise in current budget outlays.

Preparations for the Fifth Plan were made with an overdue recognition of the shortcomings in the agricultural sector and the imbalance in development which left the rural population—nearly 80 per cent. of the total—far behind in terms of living standards with an average income of \$200 compared with the urban dwellers \$1,000. From the vital point of view of Iran's industrialisation—which must provide the main basis for economic viability when the oil runs dry—an emphasis on agriculture and rural advancement was imperative. It was appreciated that the low purchasing power of a large proportion of the population would limit the growth of in-

Plan priorities

REVISED 5TH PLAN
FIXED CAPITAL FORMATION

	PUBLIC SECTOR			PRIVATE SECTOR			Grand total
	State investment funds	From resources of public enterprise	Total	From private savings	State investment funds	Total	
ECONOMIC AFFAIRS	1,734.08	411.56	2,145.69	708.84	176.54	8,385.28	3,031.87
Agriculture and natural resources	166.8	10.00	176.85	62.40	70.00	132.40	309.25
Water resources	157.24	5.00	162.24	2.00	2.00	4.00	166.24
Electricity	240.00	70.50	310.50	—	—	—	310.50
Industry	232.14	25.00	257.14	402.00	100.00	502.00	780.14
Oil	333.00	202.90	535.90	87.80	—	87.80	623.70
Gas	51.00	69.00	120.00	47.50	—	47.50	167.50
Mining and quarrying	61.50	0.50	62.00	4.00	0.50	4.50	66.50
Transport and communications	400.00	2.20	402.20	90.00	—	90.00	492.20
Postal and telecommunications	66.30	23.00	91.30	—	—	—	91.30
Tourism	6.80	1.66	8.46	12.14	4.04	16.18	24.64
Commerce	0.10	—	0.10	—	—	—	0.10
SOCIAL AFFAIRS	552.02	38.50	590.52	691.80	3.05	694.85	1,285.37
Education	126.77	—	126.77	2.70	2.10	4.80	131.57
Culture arts	9.10	—	9.10	0.50	0.50	1.00	10.10
Public health, medical service and nutrition	42.05	—	42.05	3.0	0.45	3.45	45.70
Social security and welfare	9.00	—	9.00	—	—	—	9.00
Youth affairs	15.00	—	15.00	0.40	—	0.40	15.40
Urban	43.00	28.50	71.50	—	—	—	71.50
Rural development	60.00	—	60.00	—	—	—	60.00
Housing	230.00	10.00	240.00	683.00	—	683.00	923.00
Environment	6.10	—	6.10	—	—	—	6.10
Multi-purpose regional development	10.00	—	10.00	—	—	—	10.00
GENERAL AFFAIRS	380.56	—	380.56	—	—	—	380.56
Head of State, legislature, etc.	319.00	—	319.00	—	—	—	319.00
Government buildings, installation	—	—	—	—	—	—	—
TOTALS	2,668.51	450.06	3,118.57	1,400.64	179.59	1,580.23	4,698.80

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Spending on defence has in the past taken priority over the social services. Although the country now has sufficient wealth for all its essential priorities the Shah's preoccupation with having strong armed forces is still very much in evidence.

Defence

"I TOLD the Shah that if the Army budget were increased we could do little if anything for agriculture, education or public health. He said: 'very well, quiet. There is talk of one them; we'll have to postpone those things'." This incident occurred in 1946, a year after the Shah had succeeded his father, and was recounted by the then financial adviser, an American Mr. Arthur Millspaugh, in a book he subsequently published. Happily for Iran, it is now wealthy enough to spend liberally on all essential priorities, but nevertheless this incident reflects the Shah's preoccupation with defence and strong armed forces: a preoccupation which is still very much in evidence.

Over 8 per cent. of GNP goes on defence and, in the revised Plan estimates for 1975-76, \$2.2bn. has been set aside for defence. This represents 31 per cent. of total public estimated expenditures during the Plan. Iran is in the process of acquiring or has already acquired some of the most sophisticated weapons available to-day and is now among the world's 15 biggest spenders on armaments. The armed forces have become according to one well informed observer "by far the most efficient bureaucratic organisation in Iran." The Shah himself continues to take a keen interest and is said to approve personally every promotion above the rank of major.

The list of hardware purchased or on order is as impressive as it is long, the latest being an order for 80 Grumman F-14 Tomcats and an agreement (though no written commitment) to take 1,200 more Chittan tanks — this time with 1200 hp engines — on top of the 764 already ordered. These are orders which few countries in the world to-day could afford to place.

Prestige

Obviously there is an element of prestige in this — weapons to match Iran's growing status in the world. However, there are other reasons why Iran feels the need to have a strong, well-equipped army, navy and air force. Above all else Iran has traditionally suffered from a chronic sense of insecurity. This is perhaps not surprising. To the north is a large border with the Soviet Union. Memories still linger of the Soviet support in the immediate post-war period for the autonomous republic of Azarbaijan and the immense difficulty experienced to remove Soviet troops from Iranian soil. Iran too, sited round the soft under belly of the Soviet Union, was caught up in the Cold War. Nor have the Iranians forgotten Soviet support for the communist Tudeh Party. A direct Soviet threat is less likely now but Iran remains very wary of the Soviet Union's ideological aims, opposed as it is to communism, and of moves to gain a warm water port in the Indian Ocean. To the East are the Afghan and Pakistani borders. Iran feels threatened by any change in Afghanistan that might push it more into the Soviet camp. While further south the prospect of a break-up of Pakistan

and in particular the moves to create an independent Baluchistan (until recently fuelled by Iraq) are again viewed with dis- health. He said: 'very well, quiet. There is talk of one them; we'll have to postpone those things'." This incident occurred in 1946, a year after the Shah had succeeded his father, and was recounted by the then financial adviser, an American Mr. Arthur Millspaugh, in a book he subsequently published. Happily for Iran, it is now wealthy enough to spend liberally on all essential priorities, but nevertheless this incident reflects the Shah's preoccupation with defence and strong armed forces: a preoccupation which is still very much in evidence.

Dispute

To the west Iran has a lengthy frontier with Iraq, whose Ba'athist regime has for 18 years been beaming hostile propaganda and harbouring political refugees. Both countries have had a long-standing dispute over the vital Shatt al-Arab waterway. More importantly Iran, whether rightly or wrongly has felt very much threatened by the build-up of Soviet influence and the supply of sophisticated Soviet weapons with advisers to Iraq. In February of this year the two countries seemed on a collision course with Iran supporting Gen. Barzani's Kurdish autonomy movement and the Iraqis making a determined effort to crush the Kurds. Many observers were convinced that had not the two heads of State agreed to bury their differences at the Algiers summit in March, there would have been a major confrontation when the winter snows cleared.

Then there is the Gulf area, so vital for the free flow of Iranian oil to the outside world. Apart from a general wariness of the Arab world as a whole, which grew up during Nasser's time, the Iranians have always feared a scenario of radical regimes taking over in the Gulf States which might then threaten oil supplies as well as breathe revolution across the waters of the Gulf. Hence the Shah's decision in 1971 to occupy the Tumb Islands and Abu Musa in the strategic straits of Hormuz. Hence also his subsequent support for Sultan Qabus (there are about 1,500 Iranian troops fighting in Oman) against the Dhofar rebels. Of course in addition to all this there has been, and still is, the general uncertainty generated by the unresolved Arab-Israeli conflict. But if insecurity has traditionally been the dominant factor behind the desire to have strong armed forces, Iran has more reason to feel secure now. The Shah has astutely won the Soviet Union round to accept him for what he is—even though the Soviet Union may still regard him as being too closely involved with the U.S. and the West for their liking. The ice was broken when Iran agreed in 1967 to sell the Soviet Union gas. Payment was part accepted in the form of arms—jeeps, tank transporters, artillery, APCs and bridging equipment. This was a neat way of proving that Iran was anxious to assert its independence. He has also cultivated friendship with China as a useful counter weight to the Russians.

Now the Shah also feels strong enough to call for the elimination of the presence of the two superpowers in the Gulf (basically the American naval facilities at Bahrain and the Soviet use of the Iraqi port Umm Qasr). The Shah is seeking to do this under the aegis of a proposed "Gulf Security Pact." Over the last three months the idea of a loose agreement on mutual security among all the Gulf states has been actively canvassed by Iran and there is likely to be a summit in the autumn to formalise this. Initially every State is almost certainly going to interpret the arrangement the way it wishes but in the long term the Iranians are determined to give it substance—such as a mutual commitment to keep shipping lanes secure. Even a year ago the idea of a Gulf security pact would have been dismissed out of hand. Undoubtedly the breakthrough in this respect has been the signing on June 13 of a "reconciliation" treaty between Iran and Iraq. This reconciliation meant the formal abandonment by Iran of the Kurdish autonomy movement, and the settling of the Shatt al-Arab dispute on the basis of the Thalweg (median) line. Assyrian has been offered to the highly significant move Britain has been asked to set up an ordnance factory at Isfahan believed to cost some \$200m. The contract is extremely large and no one is yet willing to divulge precisely what it really involves. But one thing is certain: it is aimed at making Iran more independent.

The other element which has made the Iranians feel more at ease is a dramatic improvement in relations with Egypt. This has been facilitated by President Sadat's dismissal of Soviet advisers and his turning towards the U.S. and Europe for military and economic assistance. The two leaders apparently get on very well. Iran has promised some \$1bn. in aid, loans and joint projects. Symbolically an Iranian warship was one of the first to go through the Suez Canal and the young Iranian Crown Prince was a guest of honour at the ceremonies. More recently the Egyptian War Minister, Gen. Gamassy, made the first visit ever by such a minister, and discussed possible areas of collaboration in the military field. There is talk of Egypt agreeing to grant the Iranian Navy facilities at its Red Sea ports. In all this Iran's relations with Israel have been downgraded but the Shah still goes his own way allowing Iranian oil to pass through the Eilat-Ashkelon pipeline.

The Shah has also sought to improve relations with other neighbours. Some arms and munitions plus funds are believed to have been supplied to the Turks during the Cyprus invasion last summer. Afghanistan has been sweetened with the promise of substantial financial aid. A reported \$1bn. aid package has been proposed to Pakistan in aid and joint ventures—the same with India. The latter's explosion of a nuclear device on its own clearly raised some Iranian eyebrows but has not altered the generally cordial tone of relations. Although all these moves have made Iran more secure, there is one important and nagging question: the country is still heavily dependent upon foreign supplies, foreign technology and the physical presence of foreign

experts for its sophisticated military equipment. Whether this creates a credibility gap or not for the equipment is open to question. One can argue that, as in the case of nuclear weapons, their very presence is the deterrent. Iran relies principally on two suppliers—the U.S. and Britain. The U.S. virtually dominates supply, technology and training of the Air Force, Britain is the main supplier in the army, and the two share the Navy.

Ideally Iran would like to be independent of such supplies and technology but it could take upwards of 20,000 foreign experts and five years to learn how to handle properly all the sophisticated equipment ordered. Steps are being taken to manufacture the majority of light and heavy ammunition employed in the armed forces. The Iranians are interested in producing locally helicopters and tanks (although they turned down an offer to produce the German Leopard); and in a highly significant move Britain has been asked to set up an ordnance factory at Isfahan believed to cost some \$200m. The contract is extremely large and no one is yet willing to divulge precisely what it really involves. But one thing is certain: it is aimed at making Iran more independent.

Lesson

This was a lesson brought home by the last Arab-Israeli war where both sides needed massive airlifts of Soviet and American supplies to keep their respective armies and air forces in the field. As a direct consequence, it seems, moves are being made to build up a special transport command. Six tanker versions of the Boeing 707-320 have been bought to carry out mid-air refuelling. In addition six Boeing 747 jumbos have been bought for reconversion as military transporters. Initially there was talk of the C-5a Galaxy line being opened up, but this proved impossible. These jumbos will provide greater manoeuvrability to the armed forces but at the same time will enable Iran to have a limited independent air lift capacity, thus avoiding delicate diplomatic problems created by over supply, say by the U.S., in time of an emergency.

The other area where the Shah is seeking to be more independent is in intelligence gathering. Recently a contract was signed with the U.S. to supply a comprehensive intelligence system for territorial surveillance. This is said to include satellites. At the same time aerial reconnaissance, at present small, is expected to be expanded. The first step has been taken with the order of six Lockheed Orions. There is a danger with all this military strength that some of Iran's neighbours themselves might feel threatened or concerned. The Shah has gone some way in calming these fears among his Gulf neighbours but in the last resort Iran does aspire to be the regional power, and as such its neighbours will have to get used to the idea.

Robert Graham

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IRAN AIR

Richard Johns

Plan

CONTINUED FROM PREVIOUS PAGE

can never really hope to attain self-sufficiency—only to reduce dependence on imports—given lack of water and the limited cultivable area. The Fifth Plan allocation to agriculture total- ing \$3,000m. is a sign of intent in the direction of maximising potential and its commitment to transform traditional small-scale agriculture into large farm-scale farming.

Urban boom

It is a strategy of which the outcome is uncertain. In general, the sector continues to suffer from the lack of a firmly co-ordinated policy and of harmonisation between the Ministries of Agriculture and Rural Affairs. At least, however, the urban economic boom is drawing people to the towns, reducing the level of under-employment in the countryside and spreading a "spin-off" of prosperity from it.

The evidence is that the rural areas are already benefiting from the decentralisation of planning which have given the provincial governors and their councils powers to draw up their own development budgets and plans in liaison with the Plan and Budget Office's regional offices. The devolution of authority excludes only industry, large schools, tourist projects and national infrastructure schemes, but the intention is to extend the province's power further next year. With the proviso that the quality of provincial administrations vary, decentralisation should also help ensure that the educational, health and social welfare services are extended more effectively into the rural areas.

The Iranian Government strains that are evident as a result of a boom which is almost out of control, it has also raised the question in some responsible

fronting it and willing to test Iranian minds: Just how fast them. Different departments ought it to grow? As one senior Iranian official encouraged to vie with one put it privately. "I think we are achieving targets, must be careful to get our priorities right: human beings are more important than petro-chemicals." In the march of its powers of implementation towards the Shah's "Great Civilisation" the two are intimately connected and the problem was formed to take responsibility for Iran's Government is one of finding the right balance. New guidelines, just what loss of educational, health and social welfare programmes and the greatly increased allocations made in these fields show that human beings are not being neglected. However, implementation of social objectives will prove a more difficult and long-term process than bringing petrochemical plants into production. At least, it must be said the dilemmas of expansion are more stimulating and preferable to those of stagnation.

Responsible

However, this moment in time—almost half way through the plan period—has posed the question: just how fast can the Iranian economy grow? Given the kind of tensions and strains that are evident as a result of a boom which is almost out of control, it has also raised the question in some responsible

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Slackening world demand for oil has
affected Iran this year but short term
prospects are still good. Recognising that
it is a wasting asset, the Government
seeks to maximise the return on it.

LIKE the other oil producers, — Exxon, Standard Oil of California and the members of the old consortium it set no firm projections for future output but the satisfaction of the objective is required. Of total Iranian gas capacity by October 1, 1978, c.f.d. in the first five months of 1975. The fact was that 1.1bn. c.f.d. was already being produced. Since then it is in the process of reinjection and down the maximum for the Soviet Union.

Now owned and operated by the National Iranian Oil Company (NIOC) with a subsidiary of the consortium acting as contractor, the Khuzestan Fields production of 5.57m. b/d (including a quantity of gas, liquids) accounted for 49 per cent. of the 1974 total. In the first half of this year output fell more than the average for the country as a whole by 12.6 per cent. By price increase there is less urgency about completion of the capacity. In the meantime, a very large investment is being made not to raise production but to maintain it at that level.

This, however, was wholly the result of the operation of IPAC (in which the partner is Amoco). Its sales rose at 178,000 b/d, some 50 per cent. up on last year. LARCO (Atlantic Richfield, Murphy Oil, Sun Oil and Union Oil) with a rated capacity of 210,000 b/d, only achieved 179,000 b/d in the first six months. Faced with declining well pressures, MINOCO (AGIP, Phillips Petroleum and the Oil and Natural Gas Commission of India) was down to 53,000 b/d. SIRIP (AGIP) also recorded a decline, 58,800 b/d, while NIOC's small Nafta-Shah field produced at the rate of 15,000 b/d.

The most recent official estimate of Iran's oil, proven and recoverable reserves remains secret, but they are believed to be no more than 70bn. barrels, a figure which would give Iran oil for about 32 years of production at 1974 rates. In terms of its oil resources, and the financial demands which will be made on them Iran is not in the comfortable position of Saudi Arabia or Iraq. And the cost of recovering its proven reserves will be high.

Exploration is continuing intensively over the country, but the chances of major discoveries appear to be fairly remote. For the next few decades it is certain that the bulk of production will come from the Khuzestan Fields in the former "Agreements Area" operated until 1973 on a quasi-concessionary basis by the Western consortium composed of British Petroleum (40 per cent.), Shell (14 per cent.), the other majors

Assumption

Clearly, in future years the Khuzestan Fields will bear the main brunt of financing the country's development. Back in 1972, when the Government started negotiating the terms for the full take-over of the country's main producing fields, the initial assumption was that they could be developed to yield 8m. b/d and produce at that rate until 1983. The 20-year "Purchase Agreement" with the consortium of Western oil companies, formerly known as Iranian Oil Participants, eventually emerged two years ago. Outlining the details of the complicated formula for sharing of output between the

IRAN VI

Oil strategy

National Iranian Oil Company it is already clear that, as far as the members of the old consortium it set no firm projections for future output but the satisfaction of the objective is required. Of total Iranian gas capacity by October 1, 1978, c.f.d. in the first five months of 1975. The fact was that 1.1bn. c.f.d. was already being produced. Since then it is in the process of reinjection and down the maximum for the Soviet Union.

Secondary

According to unofficial estimates, the secondary recovery programme could absorb anything from 8-15bn. c.f.d. with the upper limit looking more likely given the fact that NIOC is aiming for an output of 30bn. c.f.d. in view of the other commitments for the development of the total allocation of 623,750,000 bbl. of which the State Oil Company (SOC) and NIOC are to provide 555,950,000 bbl. The balance would come from the members of the consortium, who still have a 40 per cent. investment obligation for the Khuzestan Fields; and the other foreign partners of NIOC involved either in the joint producing ventures or in exploration under service contracts.

More recently, NIOC has announced a \$7.5bn. expansion programme covering some of the investment of its gas and petrochemical subsidiaries over a five-year period beginning from 1978 designed to raise production to the 7.2m. b/d mark and also raise gas utilisation from the present capacity of 5bn. cubic feet per day (all of it currently associated with petroleum production) to 30bn. c.f.d. The coming five years are, indeed, a very important period in Iran's development of oil resources. No official word has been forthcoming on what is a key question in the country's economic development. But the general understanding is that extension of oil from the Khuzestan fields by primary methods can go on for only another seven or eight years and the prolongation of their life to the end of the century will involve a massive programme of gas reinjection.

Few of the secondary recovery projects have reached the detailed engineering stage, but from 200,000 b/d in 1973 to

Known gas reserves in Iran are enormous and new finds are still being evaluated. Decisions must be made how to use it: exports, petrochemicals, re-injection or fuel.

Gas wealth

WHILE THE productive life of Iran's main oil fields has a span which is known and limited, its gas potential remains to be defined with real precision. It is, however, clear that the country has an immense stock of this natural resource which in the next century must be a vital ingredient for the country's sustained growth. The most recent official estimate of proven reserves given earlier this summer by a senior official of the National Iranian Oil Company was that proven reserves currently amounted to 374 trillion cubic feet or 144 per cent. of the world total. In the global league that would place Iran second only to the Soviet Union. This figure, however, would almost certainly understate covered by the letter of intent signed with El Paso Natural Gas number of discoveries is still in hand including the two very concerns, Soper and Distrigaz. Significant and exciting ones. Most immediately the concern is the "C Structure" offshore near the Bushehr and another in the on-land area near Bandar Abbas. A limited quantity is The indications are that actual production from the joint ventures and may not be less than 600 trl. NIOC—some 350m. cubic feet lion cubic feet, and that Iran per day in 1973 of which 22.5m. will be able to rely on natural gas was utilised. The bulk gas as a source of energy into comes from the Khuzestan fields. The volume produced in 1974 amounted to some 4.4bn. cfd of which little more than 2bn. cfd was consumed, including some 880m. cfd to the Soviet Union. IGAT's full capacity is being reached this when rather more than 1.6bn. cfd will be sold to the Russians and the balance crucial importance. Inevitably delivered by spur lines to the first priority must be reinjection into the Khuzestan fields, and Abadan for industrial, domestic use. Crude from the Agha Jari, Marun, and Ahwaz fields feeds must be made as to how the IGAT system after the much gas should be set aside to natural gas liquids have been fuel the nation's economy and extracted for separation into to feed the petrochemical in propane, butane and natural gas dustries designed to give Iran gasoline at the export-orientated maximum added value from the Bandar Mah Shah refinery. The "lean sour gas" wasting asset.

Priority

Given the certain and rapid decline of oil production from 1990 onwards delineation of the country's gas reserves is of crucial importance. Inevitably delivered by spur lines to the first priority must be reinjection into the Khuzestan fields, and Abadan for industrial, domestic use. Crude from the Agha Jari, Marun, and Ahwaz fields feeds must be made as to how the IGAT system after the much gas should be set aside to natural gas liquids have been fuel the nation's economy and extracted for separation into to feed the petrochemical in propane, butane and natural gas dustries designed to give Iran gasoline at the export-orientated maximum added value from the Bandar Mah Shah refinery. The "lean sour gas" wasting asset.

CONTINUED ON NEXT PAGE

300,000 b/d in 1974, 450,000 b/d this year upwards to 1.5m. b/d in 1981.

The "stated quantity" after that date will be the same proportion of total crude available for export as 1.5m. b/d was in 1981. However, if by then NIOC has committed the full 1.5m. b/d to refining and other ventures in which it has an interest of 50 per cent. or more it will be entitled to 1.5m. b/d or 50 per cent. of total crude oil available for exports, whichever is less.

The implication of the Purchase Agreement—concluded before the OPEC price increase of 1973-74—was that output would run at the optimum level. For the companies the attraction of it was the assurance of supplies which it gave. It remains to be seen how the sales provisions would be affected if OPEC was to impose a production programme. In the meantime NIOC has been able to export its full entitlement either from the Khuzestan fields or the joint ventures, although figures given by the company show sales in the first six months of this year to have run 17 per cent. higher than the same period of 1974.

NIOC reports exports during 1974 to have run at the rate of 418,000 b/d and 524,618 b/d during the first six months of 1975. This would compare with an entitlement this year of 450,000 b/d from the consortium and nearly 235,000 b/d from joint ventures. According to independent sources, actual sales ahead of all from the Khuzestan fields ran at just under 320,000 b/d. As far as the joint ventures are concerned it is known that NIOC's inability to lift its share in 1974 has brought into play complicated and—for the partners—uncomfortably costly over-lifting obligations.

Despite their part in pushing up the bids at the fateful auction of NIOC crude, which was used to justify the enormous OPEC increases late in 1973, the Japanese have been purchasing very little. U.S. independents are known to have bought odd lots, but the steady outlets have been Madras refinery in which NIOC has a share, South Africa, Israel and Romania (via the Israeli pipeline). Yet, these are early days yet for NIOC despite its aim to become a major international force in the world oil business.

In this direction its ambitions have been highlighted by negotiations with Shell to purchase a share in the company's U.S. subsidiary and the interest a \$1.52bn. export refinery with shown by the Shah in buying a 500,000 b/d capacity, which Burmah Oil's 20 per cent. has been envisaged as part of shareholding in BP which the U.S. deal, are still alive. In partnership with Under a joint protocol Belgium NIOC in North Sea exploration has expressed its interest in a "White" that initiative large export-oriented refinery seems to have made no progress and petrochemical complex for political reasons, NIOC says. Sooner or later NIOC should be of the U.S. bid. Our negotiating products on a large scale with the Shell Oil scale. Company concerning our cooperation in their marketing.

Export

Back home NIOC is engaged in a big expansion programme that will add to existing capacity of 325,000 b/d another 600,000 b/d with new facilities at Isfahan, Ahwaz and Tabriz being built. Although it owns the Abadan export-refinery, the world's largest, it is undergoing an increase in capacity to 600,000 b/d, but whose products are committed to the consortium under the Purchase Agreement, NIOC has not become an exporter of products. Its determination to obtain maximum added value in this way through deals which tie long-supply commitments to partnership in export-refineries remains as strong as ever.

Progress in its negotiations on various projects over the past two years has not been helped by the world's general over-capacity. For that reason the prospects for the joint ventures that have been discussed with the Japanese and West have been highlighted by negotiations with Shell to purchase a share in the company's U.S. subsidiary and the interest a \$1.52bn. export refinery with shown by the Shah in buying a 500,000 b/d capacity, which Burmah Oil's 20 per cent. has been envisaged as part of shareholding in BP which the U.S. deal, are still alive. In partnership with Under a joint protocol Belgium NIOC in North Sea exploration has expressed its interest in a "White" that initiative large export-oriented refinery seems to have made no progress and petrochemical complex for political reasons, NIOC says. Sooner or later NIOC should be of the U.S. bid. Our negotiating products on a large scale with the Shell Oil scale. Company concerning our cooperation in their marketing.

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Petrochemicals

Fertilisers

The first phase of IFC's expansion programme involving the installation of plant to produce 50,000 tons of mixed fertilisers—the full nitrogen-phosphate-potassium blend—and 30,000 tons of sodium tripolyphosphate is now finished. The second one costing an estimated \$250m. and planned for completion by mid-1977 will greatly increase IFC's production giving a further annual capacity of some 440,000 tons of ammonia, 550,000 tons of urea, 110,000 tons of nitric acid, and 220,000 tons of ammonium nitrate with the whole of the extra output destined for domestic consumption.

Down south the Abadan Petrochemical Company, the

In contrast, the Kharg Chemical Company (known as Chemco), the 50:50 joint venture between NRC and Amoco, has had to delay implementation of its plan which would involve a doubling of annual sulphur capacity to 460,000 tons, and articles. On the drawing boards is a second phase investment, currently calculated at \$90m., embracing the construction of a cracking unit for production of ethylene and propylene as well as production of acrylonitrile and methyl methacrylate.

Isfahan

gasoline) to 500,000 tons. Also being implemented is NPC's aromatic plant at Abadan which will feed on naphtha from the NPC refinery there. At cost of now put at \$350m, it should come on stream by 1973 producing up to 800,000 tons annually of benzene and xylene. In the private sector Du Pont of the U.S. has joined forces with the Behshahr group, the Mah Nakh Company, IMDBI and the Industrial Credit Bank in the construction of a \$250m.

per cent.), British Industrial Plastics (40 per cent.), and the ICB (20 per cent.)—should come on stream next year, while the Irano-Garb group is planning to manufacture 30,000 tonnes of polystyrene products in the near future.

All these projects fall in the Fifth Plan period although it seems probable that some will not be completed until after 1977-78. Inevitably, the labour

Yet to be finalised are contractual agreements with Union Carbide for the proposed \$700m. ethanol, isopropional and ethylene glycol complex and with Dow Chemical (Europe) on another basic aromatics-olefin complex estimated to cost \$500m. Negotiations have been taking place also with Phillips Petroleum, B. F. Goodrich and Ashland Oil on a giant petrochemical plant.

Most of these projects can be regarded as falling in the Sixth Plan period and as part of a major expansion of the country's infrastructure, which NPC originally envisaged a total investment of \$8bn. The company now recognises that with inflation the outlay is more likely to be in the region of \$10bn. It also recognises that rising well above the present annual rate of some \$1bn.

ners, stressing that they should be "phased-in" at the appropriate time.

A number of such projects are hanging fire. The letter of intent signed with Bayer and Inventa (of Switzerland) for a caprolactam joint venture has yet to materialise into a firm agreement. Details of the project to be undertaken with Dynamit-Nobel for dimethyl-terephthalate production has yet to be finalised, but NPG says that the project is still on the cards. Negotiations are continuing with Mitsubishi on the project for the manufacture of methanol on

Availability of cheap gas and gas, liquids makes NPG confident that it can eventually obtain a return of as much as 30 per cent. on its investment (the recovery of which is also assured by the assistance of massive fertiliser subsidies).

With the strong base provided by a large, expanding domestic market and the natural advantages deriving from its hydrocarbon resources, Iran can look forward to becoming the strongest petrochemical power in the Third World.

Richard Johns

Richard Johns

Gas

CONTINUED FROM PREVIOUS PAGE

Consortium

With the reinjection requirements of the Khuzestan fields estimated at anything from 8-13 bn. cfd it was inevitable that NIOC would make the decision to devote all the balance of associated gas to reinjection with the total availability in 1980 calculated at 2bn. cfd. To make up the shortfall considerable quantities will have to be drawn from the pure natural gas fields. The first such injection is being made this year with the delivery of 300m cfd to the Haft Kool field and to the Haft Kool B field from the Natf South dome which in 1977 is also to supply a smaller (or, perhaps, smaller) field yielding something like 700m. cfd of LNG. The project will be a joint venture between NIGCO (50 per cent.) and the consortium composed of International Systems and Control (15 per cent.), Missoh-Iwai of Japan (15 per cent.), Chicago Bridge and Iron (7.5 per cent.), Halfdan Ditlev-Simonson (7.5 per cent.) and Lone Star Gas (5 per cent.). The last name bought into the project earlier this year taking an option on 400m. cfd of output.

Responsible for the drilling, Lone Star is expected to considerably expedite the progress since J. E. Britchard, a sub-

Towards the end of the next year, some 200,000 cu m of gas from the Fars gas field will be pumped into the Kangan and Alpha Jari fields.

With studies continuing and the programme still being worked out, it remains to be seen exactly what demand Iran's vital secondary recovery programme will make on associated gas resources. But by any criteria, the proliferation of the life of the oil fields must be the first priority. At the same time, the National Gas Council estimates that domestic consumption of gas is roughly doubling from the present rate of 1.5bn. cu ft to 3.2bn. cu ft in 1980.

A subsidiary of ISCC, is working on the design of the plant. The foreign partners are raising the finance for the project most of which is expected to come from the U.S. Eximbank.

The fate of the third major export project will depend on the delineation of the Kangan Structure and also the prospects for the Suez Canal remaining open, according to authoritative NIGC sources. As yet it is not certain if and when the letter of intent signed by NIGC, on the one hand, and Elf, the U.S. and Sopris and Distrigaz of Belgium, on the other, will be translated into a project.

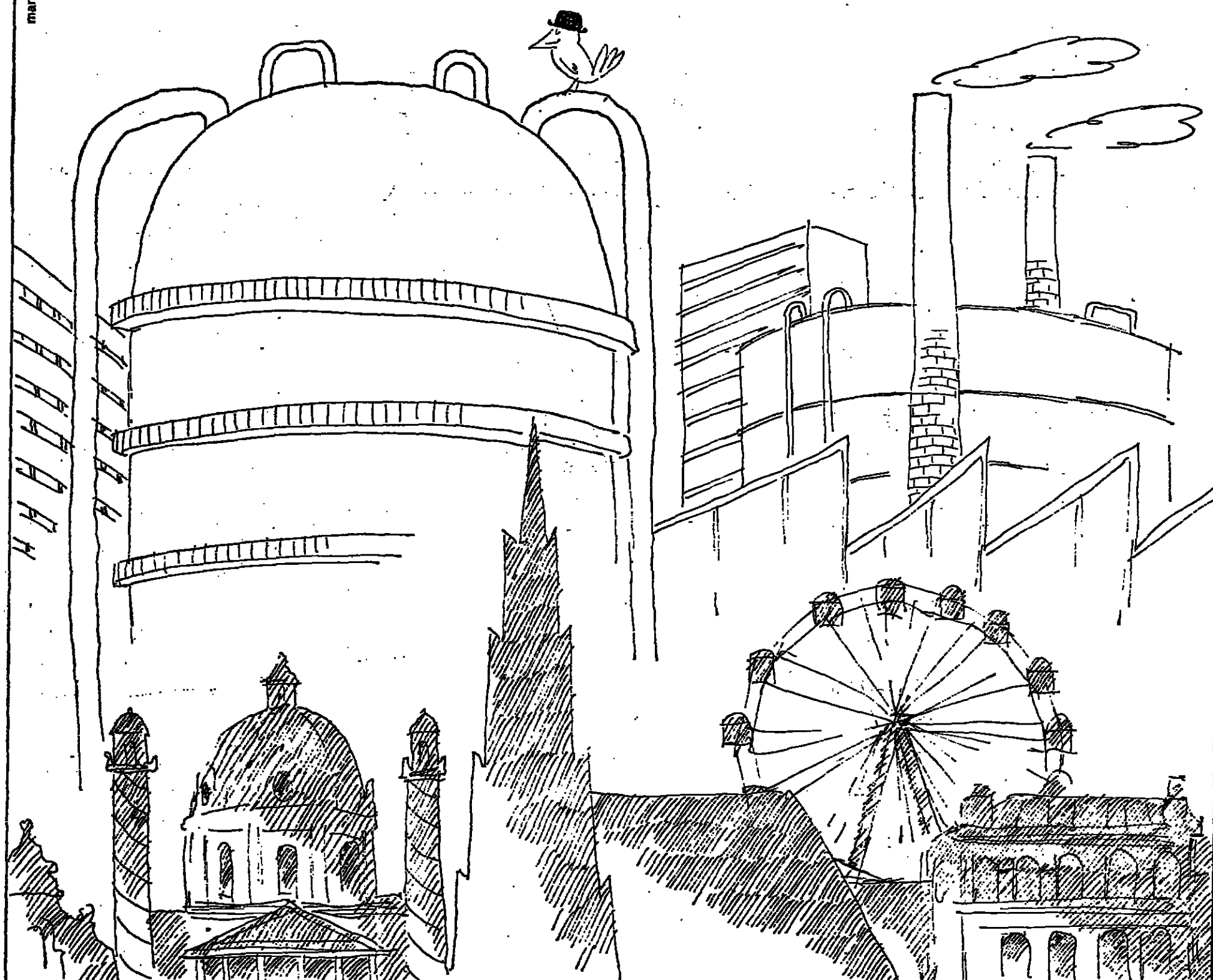
Adjustment

Last summer Iran reached agreement with the Soviet Union on a higher price for the gas pumped through IGAT. Retroactive to January 1, 1974, it gave an extra 57 cents per thousand cubic feet, an increase of 86 per cent on the old level of 30.7 cents, with provision for a further adjustment if the price of fuel oil moves up 30 per cent or more. There followed the signing of the letter of intent for the trilateral deal under which Iran would supply 1.3-1.5bn. cu ft. of gas to the Soviet Union and the USSR would deliver 1m. cu ft. to West Germany over a 25-year period with 1981 set as the date for the commencement of exports through IGAT II.

According to NIGC, the minimum base price—to be paid in hard currency—will be more than for the gas being delivered by the present trunkline and escalation provisions will be included in the agreement. The assumption now is that the gas will be supplied from the C structure of the Kangan field

Richard Johns

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IRAN'S PLANS FOR DEVELOPMENT

IRAN'S PROGRESS FROM 1960 TO 1973

Iran is a rapidly developing country, rich not only in oil but also in other natural resources, many of which are yet to be exploited. Ever since 1960 Iran has been witness to a tremendous change in its economic and social structure. Iran's GNP in constant 1959 prices has increased by four fold from \$4.5 billion in 1960 to \$17.1 billion in 1973. Expenditures for consumption have increased by three fold from \$3.8 billion in 1960 to \$11.2 billion in 1973. This rapid expansion has been achieved by allocating an increasing share of domestic output for investment purposes. Total gross investment during the

same period increased by 4.6 times, from \$3.8 billion to \$17.1 billion. The rapid growth was also due to a rapidly expanding oil industry. Value added in the industries and mining sector which reflects the structural change in the economy, increased by 4.6 times, from \$7 billion to \$32.4 billion.

In terms of Current Prices, Iran's GNP in 1973 reached the \$26.0 billion level and its per capita GNP exceeded \$800. The annual figures for the above economic indicators in terms of current and constant prices with the annual rates of growth are given in Table 1.

TABLE I
Some Indicators of Iran's Economic Growth During 1960-1973 in Million U.S. Dollars and percentages

	1960	1973	Average Annual Rate of Growth
	Current Value	Constant Value	Current Value
Gross National Product	4613.4	4622.2	28049.2
Per Capita	211.9	204.9	543.1
Value Added in Agriculture, Industry & Mining	1356.7	1300.0	3507.4
Oil	782.6	731.3	3052.2
Services	449.2	462.6	8256.2
Total	1767.1	1688.0	8319.4
Consumption	3923.3	3786.5	16423.8
Total Investment	862.6	823.3	5913.4
Total Exports	587.0	604.1	8291.0
Total Imports	741.7	728.0	5197.0

NOTES:

* Exchange rate: 1 U.S. dollar = Rls. 67.

On all other tables to be consistent with the Revised Fifth Plan Report, exchange rate used is: 1 U.S. dollar = Rls. 67.5.

** All time periods cover March 21st of the year stated to March 20th of the following year.

The rise in the value of Iran's foreign trade was particularly outstanding during the period under review. Value of total exports in current prices increased from about \$6 billion in 1960 to \$9.3 billion in 1973, a 15.6 fold increase. In terms of constant prices the increase in exports was about 10 fold. Though non-oil exports have increased from \$150 million in 1960 to about one billion dollars in 1973, yet it was obvious that oil exports have been the contributing factor to the rapid increase in total exports.

The rapid rate of growth in Iran's economy and a rapid growth of exports have given rise to increasing imports. Value of imports in current prices increased from \$7 billion in 1960 to \$5.2 billion in 1973, a seven fold increase. In terms of constant prices the increase in imports was five fold.

The strategy of economic development during the period under review was to emphasise industrialisation by properly channelling the receipts of the oil sector to the private and the public sectors, and by promoting domestic industries via pursuing import substitution and protection policies.

THE REVISED FIFTH PLAN

From 1973 on, fuelled by rising oil prices in the international markets, the speed of Iran's economic growth accelerated tremendously. The Fifth Development Plan for 1972/73-1977/78 was originally approved in early 1973. The projected GNP growth rate in current market prices was 15.3 per cent. per year, total revenues from oil exports \$24.6 billion, and the inflow of foreign capital \$8.3 billion. Imports were projected for the Plan period to be \$34.1 billion and non-oil exports of goods and services \$6.1 billion.

The changes that occurred in the international economy during 1973-1974 namely increasing costs of imported raw materials and industrial goods, increasing oil prices, and domestic inflation, fuelled to a significant degree by international inflation, made it necessary to revise the original Fifth Plan. By this revision, the planners were not only concerned with increasing costs of projects, and additional revenues which could be allocated for implementing additional projects, but also with a change in development strategy. Unlike the previous plans, which were based on limited domestic and foreign financial resources, the revised plan had to contend with limitations of other factors of production, such as skilled manpower, infrastructure facilities, and availability of raw material inputs.

As a result, three new dimensions were added to Iran's medium term planning discipline, namely:

- Planning on the basis of limited supply of domestic resources, infrastructural capacities, and skilled manpower.
- Outward orientation of the plan with due emphasis to absorptive capacity of the domestic economy and investment of the balance of payments surplus abroad.
- Expansion of reliance on imports of intermediate, capital, and consumer goods to meet domestic shortages during the Plan, and providing for infrastructures, institutional factors, and changes in foreign trade regulations necessary for such procurements.

The planners realised that the rapid growth of oil revenues provides an opportunity for reaching the long term social and economic objectives in a shorter time period. At the same time, it was understood that such development may bring in its wake bottlenecks and disparities such as excess demand for food, housing, services, rapid growth of urban areas, worsening income distribution, and rising prices of non-tradeable goods. Consequently the aim has been to draw up the Plan in such a way as to ensure rapid growth while avoiding as far as possible the unfavourable side effects that such a rapid change could bring.

OBJECTIVES OF THE FIFTH PLAN

The Objectives of the Fifth Plan contain both qualitative improvements in the standard of living and the quality of life, and quantitative objectives of production and income growth. The qualitative objectives of the Plan are as follows:

- To raise the quality of life by maintaining rapid, sustained, and balanced economic growth, accompanied by minimum rise in the level of prices, and relative improvements in the living standards of the low income groups.
- To extend social, economic, political and cultural justice among all social classes, with particular emphasis on their equitable distribution.
- To improve the quality and increase the supply of active manpower in order to increase productivity and eliminate development bottlenecks.
- To preserve, rehabilitate and improve the environment and the quality of life particularly in the urban areas.
- To encourage dissemination of science and modern technology and to promote creativity and initiative.
- To preserve and to enrich the country's cultural heritage.
- To encourage competition in production and export of industrial goods, and to make optimum use of exchange surplus by investment abroad, and by creation of national wealth to replace depleting oil reserves.

The quantitative objectives of the Fifth Plan are:

- Real increase in the GNP by 26 per cent. per year. GNP is expected to rise from \$17.4 billion to \$55.0 billion in 1972 prices during the Plan. Per capita GNP is projected to rise from \$556 to \$1,521. Table II shows GNP and use of resources for the first year of the Fourth Plan and the first and the last years of the Fifth Plan.
- Total investment of about \$70 billion, out of which \$46 billion is undertaken by the public sector, and \$24 billion by the private sector.
- Sectoral target growths, of value added per year in agriculture 7.0 per cent., in industries and mining by 18.0 per cent. in services by 16.4 per cent. and in the oil industry by 51.5 per cent (Table III).

TABLE II
Fifth Plan: Gross National Product and Use of Resources (Billions of 1972 dollars)

	1967-68	1972-73	1977-78	Annual growth rate (in per cent.)
Consumption expenditures	8.00	13.31	32.12	10.7
Private sector	(6.55)	(9.56)	(19.59)	(7.9)
Public sector	(1.45)	(3.75)	(12.53)	(20.8)
Gross domestic fixed capital formation	2.23	4.25	15.60	13.7
Private sector	(1.14)	(2.08)	(4.73)	(12.9)
Public sector	(1.09)	(2.16)	(10.87)	(14.6)
Net export of goods and services	.07	.30	6.89	—
Gross national product (market prices)	10.16	17.26	54.61	11.2
Population (in millions)	26.5	31.0	35.9	3.0
Per capita GNP (in dollars)	383.4	556.7	1521.2	7.7

TABLE III
Fifth Plan: Value Added by Major Economic Sectors (at 1972 prices) (Billions of dollars)

Sectors	1972-73	1977-78	Average annual growth rate (per cent.)
Agriculture	2.98	4.18	7.0
Oil	3.20	25.36	51.5
Industries & Mining	3.66	8.35	18.0
Services	6.60	14.13	16.4
GDP (market prices)	16.44	52.05	25.9

PLAN'S POLICIES AND GUIDE LINES

In order to achieve the Plan's social and economic targets, in addition to the active role played by the government in domestic investment and capital formation, it is envisaged that the government would pursue appropriate policies in line with the goals of the Plan.

These policies include:

- Reorganization of the tax system to ensure wider coverage, to reduce income distribution inequality, and to provide an increasingly important source of public revenue.
- Regionalization of the State General Budget so as to promote faster economic growth in the less developed regions, and to encourage a more active role played by provincial authorities.
- To follow monetary policies conducive to the maintenance of real growth and control of inflation, and to refrain from deficit financing of government expenditures.
- To bring about the necessary changes in the administrative system, affecting the way decisions are made, implemented, and supervised. Also to encourage public participation in planning and decision making, and delegation of executive power to the regional authorities.
- To strengthen the country's defensive capability and to modernize the facilities and equipments of the Armed Forces so as to protect Iran's territorial integrity in keeping with the country's Independent National Policy. In addition to the above general policies, specific policies are designated to achieve each of the specific goals of the Plan, which are not dealt with here.

GOVERNMENT FINANCIAL PROGRAMME

Total government receipts during the Fifth Plan are projected at about \$122.8 billion of which about 80 per cent is from oil and gas revenues, and 14.5 per cent from taxes, and the rest from utilization of foreign loans, profits from government monopolies, and income from foreign loans and investments.

Of the \$122.8 billion government expenditures during the Plan, 41 per cent are allocated for current expenditures, 34.3 per cent for fixed capital formation, 11 per cent for welfare aids and other payments, about 9 per cent for investment abroad, and 4.8 per cent for payment of foreign loans and credit (See Table IV).

TABLE IV

Fifth Plan: Government Financial Projections (billions of dollars)

Revenues	
Oil and gas revenues	98.2
Direct taxes	8.1
Indirect taxes	9.9
Foreign loans	2.2
Bank credit (net)	—
Sales of debt instruments (net)	0.7
Other revenues	3.7
Total	122.8
Expenditures	
Current expenditures	50.2
Public affairs	(6.8)
Defence affairs	(29.1)
Social affairs	(11.1)
Economic affairs	(3.2)
Fixed capital formation	42.2
Repayment of foreign loans and credits	6.0
Foreign investments	11.0
Other expenditures	13.4
Total	122.8

INTERNATIONAL TRADE AND ECONOMIC RELATIONS

The major transformation in the Iranian economy in the past decade and a half has brought about increasing interdependence of Iran's economy with the world economy.

Iran's interdependence with the world's economy has increased at a time when the world economy is facing many problems as well as unprecedented challenges. The widening gap between the developed and the developing economies, severe inflation accompanied by unemployment and low rates of growth, disorder in the international monetary system, and disequilibrium in balance of payments of many countries, would continue to have a significant impact on Iran's economy. Consequently the main objective of Iran's foreign economic policy in the Fifth Plan is to adopt measures which would enable the country to benefit by playing a more active role in the international markets, while safeguarding it against undue and hazardous dependence on foreign sources.

TABLE V
Fifth Plan: Foreign Exchange Receipts and Payments (billions of dollars)

A. Current receipts	114.0
Oil revenues	102.2
Other exports	4.9
Services	4.9
Income from foreign investment	2.0
B. Current payments	94.7
Imports	79.1
Services	14.3
C. Interest payments on foreign loans	1.3
D. Balance on current account (A+B)	19.3
E. Capital account receipts	4.7
Foreign loans by the government sector	2.2
Other foreign loans and private capital	2.5
F. Capital account payments	6.5
Amortization of official debts	6.0
Private investment and repayment of private debts	0.5
G. Balance on capital account (D+E)	1.8
H. Balance on foreign payments (net) (C+F)	17.5

More specifically the Plan calls for:

- Elimination of domestic shortages to relieve the inflationary pressures by increasing imports of consumer, intermediate, and capital goods.
- Increasing the relative competitiveness of the domestic economy in production and export of industrial goods, particularly in petrochemical and heavy industries.
- Creation of national wealth by investing the balance of payments surplus abroad.
- Providing economic assistance to friendly developing countries, and granting loans to international financial institutions and the developed countries in order to promote further development and adjustment in the world economy.

Table V shows a summary of Iran's foreign exchange receipts and payments during the Fifth Plan. Oil revenues are expected to exceed \$102 billion, 12.3 times the corresponding amount for the Fourth Plan. Exchange earned from export of non-oil goods are expected to increase 25 per cent. annually, reaching about \$5 billion for the Plan period. Value of Export of services would amount to about \$7 billion, out of which about \$2 billion is due to income from Iran's foreign investments and loans.

The policy of continued rapid economic growth by increasing reliance on foreign supplies will result in unprecedented increases in imports. Payments for imports of goods are expected to increase at an average annual rate of 60 per cent., amounting to \$79 billion for the Plan period, or 7.3 times the level of imports during the Fourth Plan.

Payments for services would increase by the same rate, amounting to \$14.3 billion for the Plan, or 7.2 times the corresponding amount for the Fourth Plan.

MANPOWER AND POPULATION

Iran's population is expected to rise from 31 million to 36 million during the Plan. No significant changes in the age structure of the population will occur. Under 15 years age group would remain 45 per cent. of the total population. Further urbanization would increase the urban to total population ratio to 42.7 per cent.

Total new employment opportunities created is estimated to be about 2.1 million, 40 per cent. of which is in industry and mining, 25 per cent. in construction, and 26 per cent. in services. Unlike the previous plans, which aimed at increasing employment opportunities, the Fifth Plan's strategy is directed towards increasing the effective supply of labour by increasing efficiency, providing technical, vocational, and on-the-job training, and by utilizing the services of foreign skilled workers.

SECTORAL PROGRAMME

It is not our intention to outline Fifth Plan programmes for all sectors here, since such a treatment is beyond the scope and the objectives of this text. Table VI gives a sectoral breakdown of public and private investment for fixed capital formation during the Fifth Plan.

TABLE VI
Fifth Plan: Fixed Capital Formation (billions of dollars)

	Public Sector	Private Sector	Total
Public affairs	5.64	—	5.64
Social affairs	8.76	10.30	19.06
Education	1.88	.07	1.95
Culture and arts	.13	.02	.15
Health	.62	.05	.67
Urban development	1.09	—	1.09
Rural development	.89	—	.89
Housing	3.56	10.15	13.71
Environment	.09	—	.09
Regional development	.15	—	.15
Social welfare	.13	—	.13
Physical education	.22	.01	.23
Economic affairs	31.78	13.12	44.90
Agricultural & natural resources	2.62	1.96	4.58
Water resources	2.40	.06	2.46
Electricity	4.60	—	4.60
Manufacturing	4.11	7.45	11.56
Oil	7.93	1.30	9.23
Gas	1.78	.70	2.48
Mining	.92	.07	.99
Transportation	5.95	1.34	7.29
Post & telecommunication	1.35	—	1.35
Tourism	.12	.24	.36
Total	46.18	23.42	69.60

In concluding this review, it should be remembered that there has been no opportunity to mention Iran's vast programmes for developing an efficient and competent administrative apparatus; providing for expansion and improvement of health and educational facilities; rural and urban development projects; preservation of the environment; programmes for more rapid development of underdeveloped regions; raising the level of social welfare and promotion of physical fitness, culture and arts. Further plans that it has not been possible to cover are: extensive programmes for the development of Iran's agricultural, water, oil, gas, and mineral resources, construction of housing and infrastructures of highways, airports, harbours, telecommunication and transportation networks and tourist facilities.

For further information please get in touch with:

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IRAN X

More and more British businessmen are becoming aware of the opportunities presented by Iran, which is the biggest importer among the oil-producing countries. The process of negotiating export contracts is often protracted but the rewards can be considerable.

Relations with U.K.

OVER THE past five years more than 4,000 businessmen beat a path to the British Embassy in Tehran—more than double the number in the previous 12 months—giving that diplomatic outpost the reputation of being the most over-worked in the world. This evidence of intense interest is hardly surprising in view of the fact that Iran is not only the fastest growing economy of any significant size in the world, but the biggest importer of all the oil-producing states. In 1974 it provided Britain's biggest market in the Middle East, and the OPEC group as a whole.

As recorded at the U.K. end of the year, British exports to Iran totalled \$5,890m. 77 per cent. up on the \$3,830m. recorded for 1973. Among members, the U.S. was far ahead with f.o.b. sales amounting to \$1,730m., a phenomenal 124 per cent. increase over 1973. The figure included some \$500m. of foodstuffs and also—under the U.S. Department of Commerce's "special category"—payments for military supplies actually made by Iran amounting to \$365m.—it will be very much more during the current year.

This impressive performance pulled the U.S. well clear of the rest. West Germany which recorded an increase of 58 per cent. to \$1,140m. in 1974 but—when the purposes of the military supplies are discounted—did not match OECD whose members account

for some three-quarters of Persian imports with the proportion growing despite the continued existence of most of the East European countries, as well as China and North Korea. Outside the industrialised West the only significant suppliers are the USSR and China which had 8.6 per cent and 2.4 per cent of the market respectively during the first nine months of 1974-75, according to the Ministry of Trade.

Military

All OECD exports to Iran totalled \$5,890m. 77 per cent. up on the \$3,830m. recorded for 1973. Among members, the U.S. was far ahead with f.o.b. sales amounting to \$1,730m., a phenomenal 124 per cent. increase over 1973. The figure included some \$500m. of foodstuffs and also—under the U.S. Department of Commerce's "special category"—payments for military supplies actually made by Iran amounting to \$365m.—it will be very much more during the current year.

What these bald statistics do not say is that future British performance will depend to a degree much greater than for any other of producing states on the extent of Anglo-Iranian economic collaboration on a government-to-government basis, direct participation through equity investment and the transfer of technology under licence. This generalisation is highlighted by the fact that over the past few years by far the biggest single British exporter to Iran outside the military field will have been Chrysler U.K.—with sales last year estimated at over \$300m.—as a result of the Hillman Hunter model under licence in Iran—the Peykan car.

Involvement in the production by Iran National of the Peykan goes back to 1963 and the off-licence group. Since then—from a period dating back to the beginning of the Fifth Plan period—the Iranian Government has sought deliberately to further economic development through agreements with the governments of the industrialised countries under which precise areas of possible collaboration can be located and suitable foreign partners identified. With the formation of the Anglo-Iranian Joint Economic Commission back in 1972 Britain was an early starter along with the U.S., France, Japan and West Germany (Iran's other leading trade partners) in a field which has broadened to include countries ranging from Canada to South Korea. Now three years later it is possible to measure general progress. The optimistic verdict is that the U.K. is doing as well as its partners so far. But it is must be qualified by an appreciation that the U.K. is absent from the huge Japanese, U.S. dominated petrochemical developments and the nuclear programme where the French and Germans have won firm orders with the Americans also having a good chance of obtaining a slice of the cake. Against this should be set the fact that Britain is the only supplier—apart from the U.S.—heavily involved in defence contracts.

Within the framework of inter-governmental collaboration, the investment conference held at Persepolis in November 1973 resulted in agreement in principle or commitment to serious negotiations on 17 joint ventures (most of which had already reached a fairly advanced stage by the time of the Iran-British Joint Ministerial Conference in the summer of that year).

From an initial engagement through feasibility studies, the formulation of a partnership agreement, successful application for a licence, and further procedural negotiations to actual implementation of a project and the final consummation of production is for the most part a long and uncertain process. By this criteria, progress seems satisfactory with a dozen of the 17 having received the protocol of January this year should soon start assembly of year. Signed by Mr. Peter Tractors in partnership with the Shore, Secretary of State for Industrial Development and Mr. Farzadun Renovation Organisation and Mahdavi, Iranian Minister of Commerce, the document contained Perkins diesel engines. British Leyland—Shore who on his return from already well established with Iran gave a figure of \$1bn. The Iranian investors in the production sum was very much less than those of the French, Italian and expand output of diesel engines Japanese. bilateral accords on at Tabriz at the rate of 5,000 a year ranging from 90 to 240 h.p. Yet they should all be considered national, with the merits would probably have agreements being very much a governmental collaboration, the

possibilities can be seen.

Without doubt, military supplies and defence contracts have made a major contribution to capacity at an extra cost of \$3m. is planned while a separate marketing company for the for 1974 the biggest items were transport and equipment at \$58.9m., machinery at \$58.9m. "classified" according to kind, at \$48m. and electrical machinery, apparatus and appliances. Under the heading of manufactured goods, exports of iron and steel goods were \$10.6m., manufactures of metal \$6.8m. and non-ferrous metals \$4.0m. Textile fibres recorded \$13.9m. and medicines and pharmaceuticals \$7.4m.

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Licensing

Within the context of the Persepolis conference the biggest involvement of all should be that of the British Steel Corporation which is almost certain to participate in one of the gas-reduction companies planned by Iran (a subject examined in another article). While the projects of some companies which emerged from the tent there are hanging fire, other British concerns like Bridon, Pilkington's, Crane Fruehauf, and Smith's Industries have pursued negotiations leading to licensing agreements independently. Bridon, in particular, has moved fast and successfully. It will be taking a small equity interest in a \$17m. project for making high-tensile steel wire and rope on which construction has just started with production scheduled to start in the first half of next year.

Quite apart from the Persepolis 17 over 100 British companies are involved in joint-venture negotiations. With Iran now flush with foreign exchange and its industry trying to satisfy a voracious home demand, the old misgivings posed by the Government's demands about export commitments and doubts about remittance of profits from trading activities have waned. Now the stumbling-blocks are more the question of workers' participation and, to a lesser extent, the official directives, as well as the old problem of administrative delays and red-tape.

While the \$102m. oil-for-goods agreement clinched by Mr. Peter Walker, then Secretary of State for Trade and Industry, early in 1974 is unlikely to be repeated a new and potentially very large dimension in Anglo-Iranian economics was given by licences. Massey Ferguson this year should soon start assembly of year. Signed by Mr. Peter Tractors in partnership with the Shore, Secretary of State for Industrial Development and Mr. Farzadun Renovation Organisation and Mahdavi, Iranian Minister of Commerce, the document contained Perkins diesel engines. British Leyland—Shore who on his return from already well established with Iran gave a figure of \$1bn. The Iranian investors in the production sum was very much less than those of the French, Italian and expand output of diesel engines Japanese. bilateral accords on at Tabriz at the rate of 5,000 a year ranging from 90 to 240 h.p. Yet they should all be considered national, with the merits would probably have agreements being very much a governmental collaboration, the

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however, from the fact that the British study on the electrification, expansion and participation of the Tehran-Tabriz rail-way—which was included in the protocol—could lead to considerable worth well over \$1bn. Involved with GEC, John Laing, Sir Alfred McAlpine and Transocean (British Railways' Concessionary arm) is an Italian consortium led by Impregilo, but the Iranian wish seems to be that the British should be basically responsible for undertaking the work.

Within the scope of the protocol a British consortium including Cementation, Taylor Woodrow, Ove Arup, Llewellyn Davies, S. G. Warburg, and York Rosenberg have reached preliminary agreement on the construction of five hospitals and a training of staff which should result in a contract in the region of \$200m. The provision for U.K. participation in the construction of 100,000 housing units could lead to a very large deal for GKN Building Design Products. In the same context Reder Conveyors, Norwest Holst Construction, and the consultants Haiste and Partners are talking about gain sales.

Negotiations on implementation of the provision about U.K. shipyards building 15 merchant vessels should be under way and the protocol also reaffirmed Iran's intention to buy Concorde. Hopefully, the appointment of the National Freight Corporation as consultants to Iran on the movement, storage, and distribution of freight will lead to orders. Particularly significant was the emphasis placed on training in respect of which the Shah apparently gives Britain a high rating. An agreement is expected to be signed soon under which 7,500 young Iranians would come to the U.K. under various schemes over the next five years.

Outside the scope of the protocol Millbank Technical Services is responsible for the setting up of a new Army apprentices' school—only the tip of the iceberg of its heavy involvement in Iranian defence including the very large ordnance factory being developed near Shiraz under a great deal of security. Wimpey-Laing are known to be particularly active in this project and the bulk of (unannounced) contracts being undertaken by British contractors has come through MTS Ordinance, it is believed.

Architect

Above board, Marples Ridgway have been awarded a \$110m. contract for the construction of 300 kilometres of highway in the south-east of Iran and Costantini are known to be on the verge of signing a very much larger one. Falk, Elong and Bovis have established a presence while over the past year there has been a steady influx of architects, consultants and chartered surveyors in the boom capital that is Teheran.

Conversely, the Shah's own concern about Britain's economic well-being was shown by the extension of the \$120m. loan facility to Britain last year, \$400m. of which was promptly drawn upon by the National Water Council. With diminishing surpluses in prospect, no further success of that kind will probably be forthcoming, but the Shah no doubt will continue to watch for investment opportunities in blue-chip British companies which can offer Iran advanced technology. While he may publicly scold Britain for indiscipline and laziness, the Monarch knows that it has expertise to offer. For their part, U.K. business can only become more interested in the opportunities for investment in Iran where profits can be made and workers are not allowed to strike.

Richard Johns

MANAGER IN IRAN

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IRAN XI

A radical scheme to force companies to offer 49 per cent. of their shares to their workers could have a profound economic effect. Nervousness among investors has not been entirely dispelled.

Workers' shares

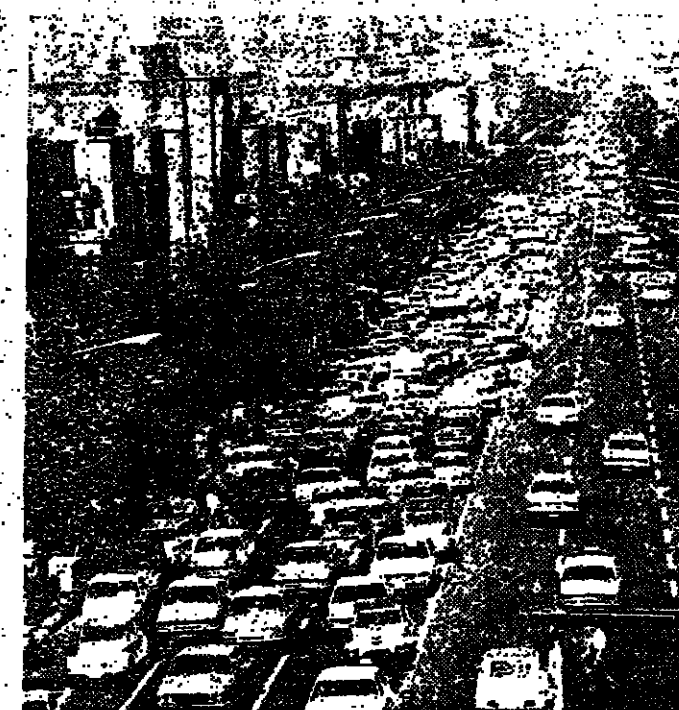
K. A SCHEME to make major of return is often as quick as manufacturing companies offer 49 per cent. of their shares to employees and the public might be termed a peculiarly Iranian on company investment, conversion of the social contract. We feel this will strengthen relations between all elements involved in manufacturing: it will encourage greater production, a greater sense of social acceptance," says Finance Minister, Mr. Hushang Ansari, who has been responsible for drawing up the details of the scheme. In short the scheme is an attempt to achieve a more equitable distribution of wealth and prevent the accelerating gap between rich and poor being enlarged by industrial fortunes currently being made (the rate on July 17.

"There is no difference at all companies are included, so are between foreign and Iranian the big footwear manufacturers—Melji Shoe, Wien, Bella and Mr. Ansari. In all 320 manufacturing companies, foreign and Iranian, have been singled out by the Government to distribute 49 per cent. of their shares. The vast majority of these are still private concerns. The total registered capital involved in these 320 companies is over \$1.5bn. Initially 106 companies have been selected to start the scheme and they have been chosen on the following criteria: registered capital must be year and a third of 106 by the 100m. rials or over (\$1.5m.); or of October 23, 1978 has been set (\$3m.) or turnover must be for the completion of the entire 250m. rials (\$3.75m.). In addition they must have a production record of five years.

maximum of 100,000 rials credit and agricultural workers offered to the public. No individual will be able to purchase for ten years at a four per cent. concessional rate. The idea is that the purchase loan should be repaid either through dividend or capital gain on sale (which will be free of tax). No share bought via a loan can be sold until the loan is repaid—which could be ten years. On the other hand those that pay cash can dispose of the shares immediately. One interesting point to emerge is that the scheme shows no clear guidelines as to whether it would prefer retention or sale of shares—or in other words whether income via dividend is favoured over capital growth. Secondly if one aim is to foster a sense of company loyalty and belonging what happens if the workers main concern is to sell quickly and buy a new car? Not all shares are likely to be taken up by those they are offered to, and accordingly a National Investment Company is going to be created to facilitate sale to the general public. The National Investment Company will have a 10bn. rials of their shares which at present (\$150m.) capital subscribed 35 per cent. by the Central Bank, average 10,000 rials to 1,000 Bank Mellat, the Central Insurance Company, Iran Insurance Company, and the Industrial Development Bank.

Accountancy

The value of the shares which the companies sell under the scheme will be evaluated on the basis of average returns over the past three years. Mr. Ansari considers this to be an "interesting point to emerge is that the scheme shows no clear guidelines as to whether it would prefer retention or sale of shares—or in other words whether income via dividend is favoured over capital growth. Secondly if one aim is to foster a sense of company loyalty and belonging what happens if the workers main concern is to sell quickly and buy a new car? Not all shares are likely to be taken up by those they are offered to, and accordingly a National Investment Company is going to be created to facilitate sale to the general public. The National Investment Company will have a 10bn. rials of their shares which at present (\$150m.) capital subscribed 35 per cent. by the Central Bank, average 10,000 rials to 1,000 Bank Mellat, the Central Insurance Company, Iran Insurance Company, and the Industrial Development Bank.



The midday traffic jam in Tehran.

A highly selective policy of buying into blue chip Western companies has resulted in three purchases.

Aid loans at concessional rates are unlikely to be expanded quickly.

Investment

ONE OF THE myths surrounding "petrodollars" is that oil producers are buying into blue chip companies on a grand scale. This myth certainly needs to be exploded in the case of Iran. What has happened is that much publicity has been given to discussions or the rare concluded deal, and this in turn has generated the impression of some large-scale initiative. The Iranians have been highly selective and will continue to be so. On the other hand the string of suitors trying to interest Iranian participation continues (which incidentally is probably another reason for the erroneous impression being created).

"They come to us, we don't go to them," says Finance Minister, Mr. Hushang Ansari, who heads a special council that vets all possible purchases into foreign companies. The council consists of, in addition to the Finance Minister, the Ministers of Foreign Affairs, Agriculture, Industry and the Plan: the final say being held by the Shah, who takes an active interest in all such deals. According to Mr. Ansari the criteria laid down for any Iranian investment in a foreign company is based upon the following considerations. Any venture must take into account the country's long-term needs, whether in the supply of raw materials, access to technology or access to markets for retailing Iranian industrial products. He stresses that the aim is not speculative. "We do not have anything against making money, but we do look at the proposals in the context of our long-term development."

Technology

So far only three deals involving an equity purchase of a foreign company by Iran have materialised. The first of these to be concluded was the purchase in September, 1974, of 25.04 per cent. stake in the German Krupp group—the shares being bought from one family, the Quandts. This deal provides access to a wide range of industrial technology including steel and armaments. No price tag was disclosed but a DM10m. joint investment company was set up in Zurich. This was then followed up this month by purchase of an undisclosed stake in a Brazilian subsidiary of Krupp, Krupp Metalurgia Campo Limpo, which supplies parts to the Brazilian motor industry. At the same time it was announced that Iran would be involved in another Brazilian venture, Krupp's Industrias Mecanicas in Minas Gerais—a plant due to begin producing next year heavy machinery for mining, metal and cement industries. This latter involvement will be via the Zurich joint investment company.

The third signed deal concerned the purchase earlier this year of a 25 per cent. interest in Deutsche Babcock and Wilcox, the German subsidiary of Babcock and Wilcox, the power process and general engineering and construction equipment group. This thus complemented the existing presence in German heavy industry. The price involved was DM178.3m. The most widely publicised of Iran's deals, with Pan Am, has yet to materialise and is unlikely to go so. The basis of the deal is a rescue operation

whereby Iran supplies a \$245m. ten year loan, which would give it about 13 per cent. of Pan Am's stock. Iran would also buy for \$55m. cash a 55 per cent. stake in Pan Am's profitable hotel chain, Intercontinental Hotels. Despite intensive negotiations the deal has proved extremely complex, and it has run up against serious difficulties. The Iranians are having second thoughts, partly because of Pan Am's financial position and partly because the deal after all does not really fit in with the requirements for investment in foreign companies.

Uranium

The other possible foreign stakes under discussion include the purchase of the 20 per cent. Burmah Oil shareholding in BP and a substantial stake in ENI's downstream operations. Clearly in these two instances Iran sees a strategic interest providing both access to technology and markets. Also in the energy field, Iran has acquired through a mixed Irano-French company, 10 per cent. of France's 25 per cent. share in the Eurodif uranium project, which will be the first European plant for production of enriched uranium. Quite apart from applying strict criteria, there is another important consideration now. In the first flush of vastly increased oil revenues last year the Iranians became expansive: they actively looked around for opportunities for their surplus funds. However, such have been Iran's own internal needs coupled with inflation abroad, that the huge surpluses originally imagined are rather illusory. This year Iran may even have a payments deficit—much earlier than initially envisaged. Thus the Iranian authorities have become more cautious, and it is unlikely at least in the near future, that we shall witness the generous offer of aid to developing nations and loans to industrialised countries.

In June the Minister of the Plan, Mr. Abdol Majid Majidi, said that foreign aid would only be given now where it was "vitality" necessary. This was the first public sign of a generally more cautious approach. Last year Iran provided Britain and France with loans of \$1.2bn. and \$1bn. respectively. (So far \$400m. and \$300m. respectively have been utilised.) These loans were at market rates, whereas concessional rates were applied to pledges of major aid commitments to Afghanistan, Egypt, Pakistan and India. As much as \$1bn. each was said to have been pledged. Rather than outright aid the Iranians have preferred to offer, say, crude at lower prices or fund joint ventures. This approach seems to be working particularly fruitfully with India, where a joint shipping company has been established and an iron ore project set up at Kudremukh for which Iran has agreed to provide the \$630m. investment. Overall Iran has pledged \$10bn. in bilateral and multilateral aid. Now that the domestic economy can absorb virtually all income generated, the aid programme will undoubtedly become less expensive and this figure will not increase very substantially in the short term.

Robert Graham

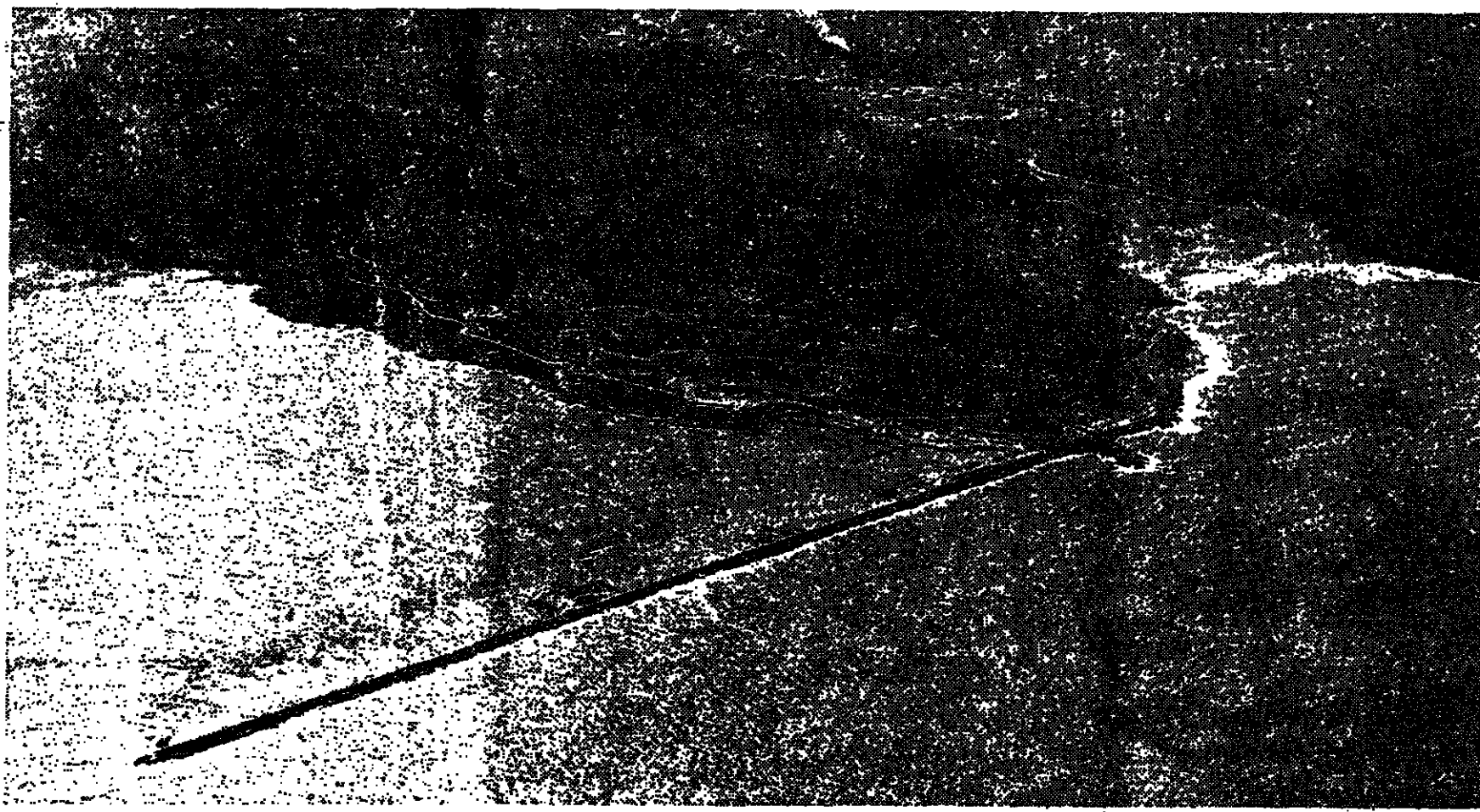
Revision

These criteria are liable to revision in the future, according to Mr. Ansari. Included in this list are virtually all the major sectors—Iran National (the first company to initiate the scheme in its experimental phase), three years. In order to facilitate such purchases the Government is setting up a special assembly plus the type manufacturing credit institute with a 1bn. rial fund (F. Goodrich and \$15m.) capital from which General Tyres. Twenty textile industrial workers can obtain a

their management agreements. For instance in a number of joint ventures certain clauses concerning budgetary control and voting rights have been written in. "We have no objection to these agreements," Mr. Ansari says. However, they must not violate the spirit of the new scheme. For the moment many local and foreign businessmen are scratching their heads as to how precisely this scheme will affect them. But the answer is probably that no one knows. It is a step into the unknown which will take a good three years to sort itself out. Robert Graham

PETRONOR

A PORT AT THE SERVICE OF THE PETROLEUM INDUSTRY.



The savings resulting from the utilization of mammoth tankers for the long haul transportation of petroleum, as well as the search for greater safety in maritime operations, led Petronor to the construction of the "superport" in the harbour of Bilbao that is gradually being put into service during 1975. The Petronor "superport" includes berthing facilities for vessels of up to 100 feet in draft and 500,000 DWT, a second facility for vessels of up to 150,000 DWT and a third for vessels of smaller size. The handling capacity is more than 35 million tons per year in crude oil and products, all in accordance with the maximum standards of safety.

The tank farm, joined to the port by 6 kilometers of pipeline, will soon exceed 2 million cubic meters of capacity.

The refinery, which is of the most advanced technical design, has been in operation since July of 1972 with a refining capacity of 7.5 million tons per year and is now being expanded to 12 million tons per year. The Petronor tankers "Arteaga", "Butron" and "Muñatones", aggregating 745,000 DWT, are capable of transporting 4 million tons of crude oil from the Persian Gulf to Bilbao, and to these three there will soon be added the 361,000 DWT tanker "Santa Maria", now under construction.

The Petronor "superport" in Bilbao, open to the grand international routes of the North Atlantic, adds strength to the petroleum industry of Spain and provides new and important possibilities for international cooperation.



PETRONOR

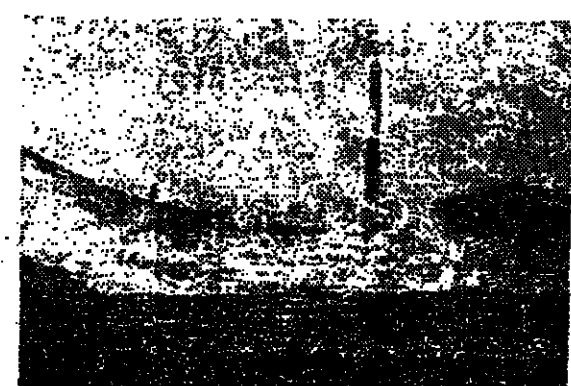
Refinería de Petróleos del Norte, S.A.

Elcano Bilbao-9

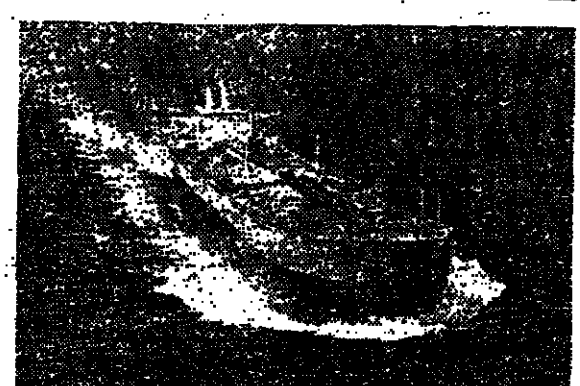
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MANAGE
IN IRAN

IRAN XII

A shortage of experienced and skilled workers is creating severe delays in the bid for greater industrialisation. To combat this the country is now attempting to recruit technicians and experts from all over the world.

Manpower

THE RELATED but sudden coming of the industrial revolution has caught the Persians badly short of skilled and experienced manpower. In fact, fast approaching crisis proportions, Iran's need for an extra 700,000 workers and specialists has become the worst bottleneck in the economy and is now threatening to delay the country's plans for industrialisation at all costs.

To make good this shortfall, the Government has resorted to a series of corner-cutting and industrial-appeal programmes that range from crash trainee courses in worker-benefit schemes and profit sharing. More radical, however, is the decision to import 60,000 technicians and experts in a massive recruitment drive that got under way earlier this year in major cities throughout the world: a good proportion of these "imports" will come from such countries as the Philippines, South Korea and India.

The alternative to such draconian measures, says one highly-placed Government official, would have been "a delay of at least ten years in many projects currently under way in Iran today."

Success is indeed imperative. Iran is counting on industrial Fifth Plan period, the manpower shortage is already making itself sorely felt: wages in the Persian year 1353 (March 1974-1975) soared 17 per cent. An essential ingredient of this plan is an and affected in almost direct proportion the country's unhappy brush with inflation.

Not even the new note of thrift recently introduced by Iran's economists will be allowed to get in the way of Iran's plans for manpower. With a budget of \$72.3m, the Ministry of Labour has been told that on no account must it scrimp on the country's need for specialists and technicians.

At last count, the Fifth Development Plan (1973-78) was expected to create some 2.1m. job openings in Iran, including position in nuclear technology, and civil engineering and a multitude of jobs in the badly-hit teaching and medical professions. Iranians would be able to fill only two-thirds of these vacancies, Labour Minister Amir Ghassem Moini warned: of the remaining 730,000 or so, foreigners would be offered 90,000 and Iran would have to make do as best she can with the 636,000 that can't be filled.

But, halfway through the Fifth Plan period, the manpower shortage is already making itself sorely felt: wages in the Persian year 1353 (March 1974-1975) soared 17 per cent. An essential ingredient of this plan is an and affected in almost direct proportion the country's unhappy brush with inflation.

Good secretaries can now take their pick from scores of \$900-plus-a-month jobs and a truck driver, for example, can command weekly salaries in the \$180-range (up from 3,000 rials in 1953 to 12,000 rials today). Tehran matrons complain that home-help can't be found and both private company executives and ministry officials report that projects are being held back months because sufficient manpower — chiefly middle-level technical staff — is virtually non-existent.

Initially there was talk of filling all 726,000 vacancies with foreigners. But the task was to prove tougher than Iran had bargained for. The Persians are a proud people — a pride reinforced by the Shah's oft-repeated vision of joining the world's top five powers within a decade — and many, it seems, could not understand why a country with such aspirations

should need so much help from the outside.

Increasingly aware of the potential dangers of importing so many foreigners into Iran, the Ministry made clear late in February its decision to exclude all requests of semi-skilled and skilled labour from the country's recruitment drive, thereby cutting back numbers to a more manageable 90,000. During the intervening six months the Ministry has quietly let it be known that the magic number of 90,000 does, in fact, include the 30,000 foreign specialists who are already working in Iran. Of the 14,000 specialists and technicians that East Asian governments have promised Iran, some 1,278 are expected to fly in before the end of August, bringing the total number of working expatriates in Iran to-day to over 36,000.

Many of the newcomers will take up immediate positions in the medical field (where there are currently 22,600 jobs a-begging) or join Iran's hard-pressed education sector which Fifth Plan projections show will be short of 57,400 teaching staff. Already 1,500 East Asian

doctors have elected to come to Iran on two-year contracts with fringe benefits that include either free housing or a rent subsidy of 20,000 rials a month.

The manpower shortage runs the length and breadth of the country and cuts through every sector of industrial and professional life. Worst hit, reckons the ministry, is the construction industry: not only is the country badly short of building material — 2.3m. tons of cement, 1.6m. tons of steel and some 5.6m. bricks — but the builders are currently in the job market with some 50,000 vacancies to be filled, vacancies that can't be filled by foreign labour.

Barren

Regionally, it is the hot and barren south of Iran that is feeling the manpower pinch most.

The full dimensions of Iran's manpower shortage did not become clear until the Fifth Plan budget was upwardly revised to \$69.6bn. last summer. Whereas the planners had originally foreseen only 1.8m. job openings, now they were talking of 2.1m. that could be filled by only 1.4m. Iranians.

Immediately following the July revision, the Labour Ministry penned a wide-ranging hiring policy that with subsequent revisions — some major — has gradually narrowed to what Iran now considers the Ideal Foreign Employee.

He (rather than she) will be single and with a specialist knowledge that would require a training period of between five to 15 years. To avoid cultural shock and disappointments that frequently come when dealing with the rough and ready of Iranian village life, the Ideal Employee will come from a country with a similar standard of living as Iran's. He will be approached only with the blessing of his Government and his final hiring will be drawn up on a temporary or contract basis.

To date only two firm letters of intent have been signed by Iran — one with the Indians for 6,000 workers and a second with the Philippines in mid-January for 3,000, not counting the 100 or so Filipino domestics who have been flown in during the

past six months and the several hundred aircraft mechanics who have been helping out at Iranair since 1968. A similar letter of intent may soon be reached with South Korea — following a "general understanding" that Seoul is prepared to send 5,000 specialists and technicians.

Closer to home and under the auspices of CENIO and RCD — the largely moribund Regional Cooperation for Development organisation with Turkey and Pakistan — 300 Pakistanis have recently come to Tehran to practise medicine. Tehran is not so keen to put out the welcome mat for workers from Turkey: migrant Turkish labour is more familiar with the greater comforts of life in Germany and might prove more demanding.

Despite such precautions, Iran's first adventure with Government-sponsored labour imports quickly turned sour. Steel, last, but not least, came the crash programme to give a general job direction to what the Ministry euphemistically terms "dropouts" — the rural workers and usually unskilled people who drift to the cities in search of a better life.

Hardly surprisingly, one of the biggest difficulties currently encountered by the Ministry is the location of qualified teachers to train the trainees. Earlier this year a three-year agreement was signed with the ILO which undertook to train 800 Persian instructors a year at its industrial training centre at Turin, Italy. In addition, the ILO is currently helping set up a training centre just outside Tehran in Karaj which when completed in two years will be able to turn out some 4,000 Persians a year with skills ranging from pipe-welding to lathe machinists and draughtsmen.

The Ministry's new plans don't exclude foreign assistance. In an agreement signed earlier this year, Britain will accept 1,800 Iranians annually for training over a five-year period and put up a 700-anual-capacity workshop at Qazvin, a major new industrial centre of the Shah's "mix" 250 km. west of Tehran. (that is, a man plus family who is flown

to Tehran, found housing, Iran hopes to have trained more schooling facilities, etc., and than 72,000 "top" technicians, who then drop out, his contract 132,000 "second class" technicians can cost \$25,000 and at least 686,000 semi-skilled and skilled workers.

Meanwhile, the Government But, as Iran is discovering, such is busily working towards the training doesn't come cheap: a day when Iranians will be able to replace the foreigners. The one of the Industrial Training main arm of the Ministry here Board's centres, for example, is the Vocational Training works out at 45,000 rials a head. Board, which is now responsible for turning out some 15,000 increasingly from the ranks of trained Iranians each year, and women and seasonal agriculture the placement people, or labour workers. The potential role of exchanges, whose numbers are Iran's students is reckoned to be currently being increased from 50 to 300.

Based on guidelines drawn up in 1973 by an International Labour Organisation team, Iran has launched a massive training programme that by the end of the Fifth Plan in 1978 will see the number of Government vocational and training schools reach the 500-mark and increasing use made of a sophisticated network of 200-plus mobile training centres. The on-site training scheme which is run in co-operation with different industries is now being beefed up and includes among its participants such giants as auto and truck makers Iran National, many of the big textile manufacturers and National Iranian Steel, last, but not least, came the crash programme to give a general job direction to what the Ministry euphemistically terms "dropouts" — the rural workers and usually unskilled people who drift to the cities in search of a better life.

Second, the seasonal agricultural worker makes up one third of the rural workforce, and the Ministry describes him as "redundant to all intents and purposes." Thanks chiefly to increased mechanisation on the farm, between 4.5m. new workers are coming on to the market to be retrained, for industry new towns that will soon dot the country as part of an integrated larger plan aimed at reclaiming land and villages. The Ministry's still ambitious drive to Iran's urban centres.

Meanwhile, the Labour Ministry is planning a large portion of its hopes on the Persian abroad, a species whose numbers run into the hundreds of thousands and who, in the medical field alone, include some 1,230 doctors in West Germany that are badly needed back home. Together with entrepreneurs around the world engaged in such businesses as Persian carpets or real estate, they are now being increasingly wooed by the Government with come-ons that may eventually run to total exemption from military services.

Few pretend that the job of manning Iran's industrial dreams will be anything but uphill — at least, until the end of the Sixth Plan in 1983 when, according to the Ministry, there should be enough skilled hands in Iran to turn to-day's dreams of industrial might into tomorrow's Persian powerhouse.

Liz Thurgood

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Iran's long-standing ambition to be a major steel producer is now starting to become a reality. Within the next decade it should develop as a significant exporter of steel despite the rapid growth in domestic demand.

Steel

AS A comparatively wealthy and advanced developing country with its own iron and coal deposits Iran was, perhaps, late in entering the lists of the world's major steel producers. Making up for lost time the Government now aims to raise capacity from the 600,000 tons now installed to 1.4-1.7m. tons by the end of the Sixth Plan Period in 1983 to 20m. tons in 1986 which, if the target is fulfilled, would make the country a significant net exporter despite the very rapid growth in domestic demand anticipated of some 20 to 25 per cent annually.

Iran's drive towards these goals has been a large boost by the technological advance involved in the development of gas-reduction of iron ore that should give it a marked relative advantage in the field of steel production. It is problematical whether Iran can achieve the capacity projected for 1983 when consumption of steel products and coal deposits at Kerman, the is expected to reach 12m. tons

at the least if consumption rises by 20 per cent annually, but perhaps as much as 18m. tons. Iran workers, and the provision of infrastructure, the creation of the Aryamehr steel works was an immense undertaking.

The ambition to become a steel producer dates back 40 years to before World War II when it started marketing long products in the latter half of 1973-1974, a year during which it was officially reported to have produced 400,000 tons of cast-iron and 250,000 tons of steel products.

Formally inaugurated in the spring of 1973, the new works had its teething troubles, particularly with coking coal, before it started marketing long products in the latter half of 1973-1974, a year during which it was officially reported to have produced 400,000 tons of cast-iron and 250,000 tons of steel products.

Isfahan to the new mines, a now has a broad range of facilities including 400,000-ton electric melting and continuous casting shop. Also in the private sector the Ahwaz Rolling and Pipe Company went ahead with its own plans for producing welded pipes. Meanwhile, the National Iranian Oil Company established its own plant to manufacture pipes for oil, gas and water.

The National Iranian Steel Company and its Soviet advisers solved the problem of coking coal by importing from West Germany an amount sufficient to create the right "mix" with the indigenous fuel from the mines in Kerman province to the south-east and the three others in the Alborz mountains with the foreign content now said to account for 7-10 per cent of the total.

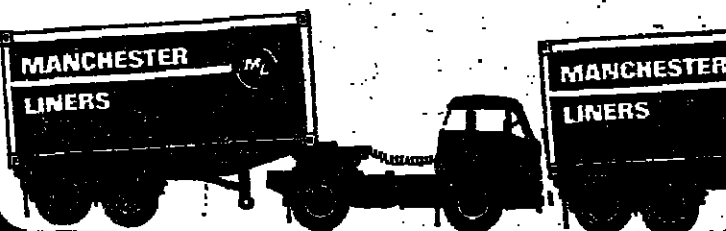
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IRAN XIII

The automotive industry is one of the first industrial sectors to begin to "take off." As such it offers an interesting reflection both of the aspirations and problems in Iran's nascent industrial base.

Motors

AT PRESENT the chief characteristics of the automotive industry are quite simple: on the one hand there is an ambitious programme of production to satisfy local needs, with surplus to export, and an aim to achieve 100 per cent. manufacture of all components locally by 1980. On the other hand this is matched by a current situation of demand far exceeding supply and a continued heavy dependence upon essential imported components.

Iran has either established, or is about to establish, manufacturing facilities for a very complete range of vehicles, from tractors, buses and minibuses through to jeeps, pickup trucks, light and heavy trucks, in addition to passenger saloons. This is being carried out principally by the private sector and in collaboration with the leading international manufacturers such as Chrysler, Mercedes, GM, British Leyland, Volvo and Renault-Citroen.

The largest single company operating in the automotive sector is Iran National (principally owned by the Khasaym family) which supplies 75 per cent. of the car market and 90 per cent. of the bus market. Iran National on the basis of a licence to produce four cylinder cars granted in 1964 assembles the Paykan—a version of the Hillman Hunter which was set up by the former Rootes Group and now taken over by Chrysler U.K. From an initial production in 1967 of 6,654 it went up last year (1974-75) to 55,525 and this year will probably touch the 100,000 mark.

While Iran National through

its Paykan dominates the car market competition comes from both Citroen and GM's Chevrolet. Chevrolet produces the most expensive saloon assembled in Iran—the Chevrolet Royale—and this year will probably make 15,000 units. Citroen markets the 2CV, and this year the model has not been particularly successful and will shortly be replaced by assembly of the Renault 5 model.

All three producers are heavily protected in the local market by high import tariffs. This has enabled the industry to get on its feet. It has also been aided by the rapid increase in a substantial portion of Iranians' income. Demand has suddenly outstripped supply in a dramatic way. There is a six months waiting list for the Paykan with cash paid in advance and many are not deterred by high black market payments to secure early delivery. Indeed such is the demand that the government has had to order from the U.K. two lots of 10,000 Avengers (civil servants being given priority purchase).

Foundry

The supply situation has been further aggravated by problems affecting Iran National, which last autumn inaugurated a new foundry and engine shop as part of a \$533m. expansion programme after initial investments of \$45m. Iran National relies upon Chrysler U.K. for just over 50 per cent. of the components, although the aim

is to eventually eliminate this and remove the word "assembly" altogether by 1980. The industrial complex at Tabriz now has three diesel engine plants (Iran Diesel, Dorman Deisel and S.S. Leyland Deisel) and Volvo intends to establish another. Another major step forward was taken earlier this year when GKN at Chrysler this is unlikely to be higher than 145,000. This to set up a components factory, which will produce clutches, propeller shafts, universal

TRUCK MANUFACTURE (5-12 tons) AND IMPORTS

	Mercedes B. Ley'd	Volvo	Mack	Imports	total
1974-75	4,730	1,100	980	915	2,210
1975-76*	6,500	2,500	2,400	2,300	8,550

* Estimates.

only be between 80,000 and 100,000. Further the company has also had difficulty in securing these U.K. units freighted through the Soviet Union. Bottlenecks on the Soviet railroads and on the Iranian border have added to the delays and now Iran National has switched all its freight to be imported via ship at Bandar Abbas. At the same time it has initiated talks with Chrysler France and Chrysler U.S. to see if it can secure alternative supplies of certain components.

These kinds of problems have determined the Iranians to press even harder to achieve 100 per cent. local production, whether it be in cars or trucks. Since 1973 a factory has been operating at Meshed producing rings, bumpers and hub caps

and can now supply over 70 per cent. of the local market. The industrial complex at Tabriz now has three diesel engine plants (Iran Diesel, Dorman Deisel and S.S. Leyland Deisel) and Volvo intends to establish another. Another major step forward was taken earlier this year when GKN at Chrysler this is unlikely to be higher than 145,000. This to set up a components factory, which will produce clutches, propeller shafts, universal

surge in imports the government last year, despite some local protest was obliged to import over 2,000 trucks and 6,000 trailers. This year over 8,000 trucks are expected to be imported. Plans are in hand to raise truck production and expand the range. For instance British Leyland is currently discussing the possibility of establishing a plant to produce 28 ton heavy trucks. It is also likely that the government in view of its intention to have some 2,000 Chieftain tanks will need transporters—the current Russian ones being considered inadequate. There are also plans to boost bus production—mainly made by Iran National with Mercedes engines complemented by some Leyland double deckers.

Already confirmed is a major new private venture in which GM will set up a plant producing 335,000 vehicles a year, of which 160,000 will be cars, 160,000 trucks ranging from 1 ton to 28 tons and the remainder jeeps. Production is scheduled to begin some time next year with a target of 100,000 vehicles after the first three years. If one adds this to Paykan's plans for 500,000 cars by 1980 plus the growth of Renault-Citroen, Iran should be the biggest car and truck producer in the Middle East by 1980; the range being completed by expanded Land Rover production (currently under 4,000) and possible Japanese involvement in the pick-up/jeep sector.

These plans are accepted to be ambitious. In practice it is likely that they will have to be scaled down. It is not just a question of bottlenecks at the ports and shortage of skilled manpower which are the chief hurdles to overcome. There are other equally delicate problems to solve. Principal among these is the question of siting. So far the industry has concentrated assembly around Tehran. The Government, in a bid to prevent Tehran becoming overloaded, is exerting strong pressure on manufacturers to look elsewhere. GM, for instance, is currently holding up its expansion plans precisely over this

IRAN CARPET COMPANY

A Government Organisation

Iran Carpet Company was established 40 years ago to maintain the superb craftsmanship for which Persian carpets have been renowned from time immemorial.

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Carpets made by the 60 weaving centres operating in the company's eight regional production branches are available at the company showrooms in Tehran. Exporters and individual buyers have ample opportunity to pick the best samples of genuine hand-knotted Persian carpets from a wide variety of designs and colours.

A genuine hand-knotted Persian carpet has many advantages. In beauty and decorative value, it is unrivalled. As an investment, it is a sure and safe way of gaining.

The value of a Persian carpet will continue to increase as will its artistic value. The effects of mechanization and mass production and the attraction of workers and craftsmen to the heavy industries dictate this. A genuine Persian carpet is a collector's piece.

The technique of Persian carpet weaving is very intricate and in fact unique to the craftsmen of this land. It is a precious heritage that has been passed down for centuries from generation to generation.

The beautiful designs, the reliable and selected dyes and the immaculate weaving methods are features of Persian carpets and the reasons for their popularity.

In fact the popularity of the Persian carpets have induced imitations to be reproduced in many parts of the world. Yet, no other hand-knotted Persian carpet ever approach the quality of a Persian carpet, either for its colours, designs, technique of weaving or raw materials.

The splendid and fast colours of Persian carpets are due to the skill of dyers and their use of natural and reliable dyes.

The designs associated with Persian carpets are traditional and well-established. However, each Persian carpet of quality bears some aspects of its creator's personal taste and artistic sense — explaining its charm and individuality.

The method of weaving adopted by the skilled craftsmen of this land is also unequalled. Millions of fine knots are tied together on the basis of a given pattern to make a Persian carpet.

Besides these features, another element of importance is the quality of the wool employed in Iran. Due to geographical factors that provide excellent grazing land, the sheep in Iran yield some of the finest wool suitable for making carpets. The superior quality of the wool explains the durability of a Persian carpet, which with age invariably becomes a precious antique and work of art.

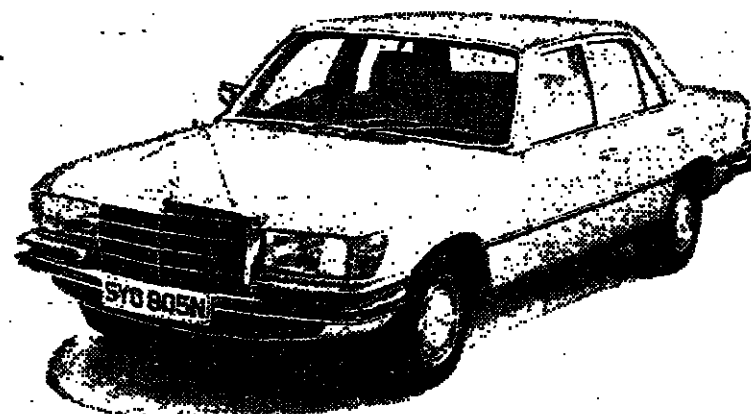
Iran Carpet Company

160 Ferdowsi Ave. Tehran, Iran.

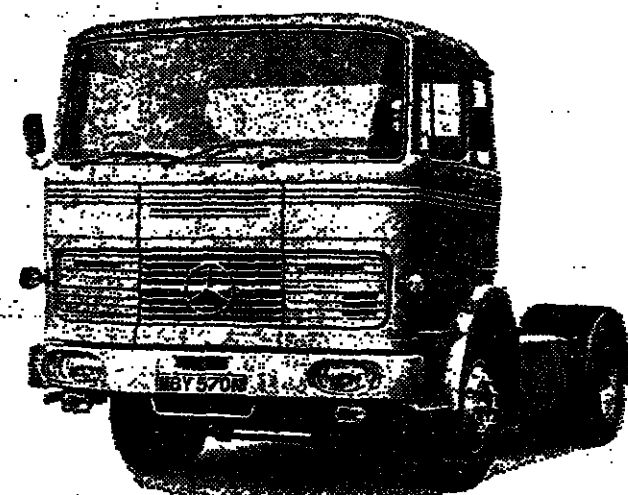
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Steel

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rated capacity with the Soviet-supplied blast furnaces performing well and capable of producing at a rate of up to 700,000 tons per annum according to Mr. Amir Sheibani, chairman of NISICO. They are evidently the best feature of the Aryamehr works. Informed observers, however, say that the complex is not ideally balanced and as yet cannot produce at its rated capacity.

NISICO is, in effect, a holding company having as its subsidiaries the five mining companies apart from the Aryamehr Steel Company. Faced with the challenge of the gas reduction projects planned by the separate State-owned National Iranian Steel Industries Corporation (NISIC), the other State agency which will concentrate on the gas reduction process, Mr. Sheibani is almost aggressive in asserting the profitability of the plant. He assures that from the first year it made a profitable return on the investment which included not only the steel-producing plant but also the mines and on infrastructure on a scale designed for the large expansion of productive capacity at Isfahan in hand and planned.

Protective

Moreover, he says that its products have a clear competitive edge over imports despite a substantial cut in the protective tariff—for which he claims responsibility—and the decline in world steel prices. With an output of 32 types of long products, for the time being it has helped to make Iran self-sufficient in some, like angles. Output from the private-sector Shahryar plants fell by some 9 per cent. to 371,000 tons of products in 1974-75 when the company's Shoush smelter began its first production of billets with a total of 40,000 tons recorded for the year. The company attributed the fall to the lower tax on imports and the reduced world prices, but nevertheless pressed ahead with the construction of its project.

Total consumption of steel in 1973-74 was reckoned to be 1.2m. tons of long products and 1m. tons of flat products, giving a total of 2.2m. tons which is reckoned to have risen to over 3.5m. tons in 1973-74 with the demand for the latter almost doubling in one year. For the future the shortfall in locally-produced supply will grow until the next phase in the Aryamehr works expansion is complete.

The second blast furnace now under construction should be commissioned towards the end of 1976 bringing capacity and production of long products to 1.9m. tons early in 1977. Beyond that firm approval has been given for an increase in capacity to 8m. tons which may later rise to 8m. tons.

With hot and cold strip mills already on the drawing boards NISICO plans to start producing flat products in the coming expansion phases. Mr. Sheibani cannot say precisely when the third and fourth blast furnaces required to bring output to that level will be in operation, but the plan is that the Aryamehr complex should be contributing at least 4m. tons to the 1983 target and possibly as much as 8m. tons. He points out that the next generation of blast furnaces will be smaller than those under development in the West, but emphasises "We do not accept what is not proven and acceptable in the world of steel."

While that remark could be seen as an oblique dig at the other State steel organisations, NISIC would be equally emphatic that two of the processes being incorporated in the country's first gas reduction plant at Ahwaz are in commercial operation. The complex being constructed under a management contract with Kaiser Engineers International Inc. at an optimistically estimated total cost of \$600m. is slated to produce 2.53m. tons of sponge-iron a year. Of this, three Midrex-Korff units will produce 1.2m. tons of sponge-iron, three Hyl units another

1m. tons and one unit of the as yet untried Thyssen Purofer process the remaining 300,000 tons.

The Purofer process is scheduled to be in operation by October, 1976, to be followed by the Midrex-Korff units in March, 1977, and the Hyl ones in July, 1977, with the pellets electric melt shop to be commissioned early in 1978. Of the 2.5m. tons of sponge-iron produced, 1.5m. tons will be refined into steel in NISIC's electric arc furnace for the production of billets and slabs which will be delivered to mixed and private sectors for reworking. Most of the 1m-ton balance is earmarked for delivery to private sector furnaces, in particular those of the Shahryar group and as feed material for the \$200m. special steels project to be undertaken by Creusot-Loire with a prospective output of 150,000 in the first phase which is scheduled to be operating in 1979 to provide primarily for forgings and castings required by the vehicle industry.

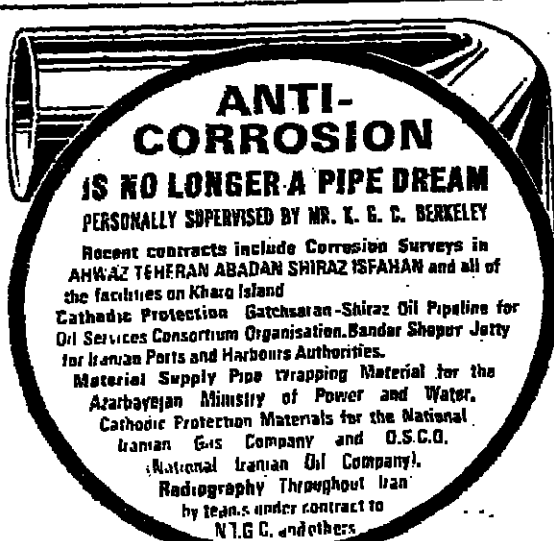
Downstream

Policy is that the public sector should own and run basic steel-making capacity up to and including continuous casting except for private sector projects already in existence or under implementation. Public sector, mixed and private ventures are envisaged downstream, where the Ahwaz Rolling and Pipe Company (20 per cent.) and NISIC (80 per cent.) are partners in a project (to be managed by Swindler Dressler) whose arc furnaces and continuous casting plant is to produce 2m. tons of steel a year for processing by ARPCO and the Shahryar group.

At least two other NISIC integrated steel complexes based on the iron-ore gas reduction process should be well-established by 1983 at Bandar Abbas and Isfahan providing between them another 3m. tons or more liquid steel with the first concentrating on flat products and the second on long products. Both are planned to be in operation before the end of 1980 although it has not as yet been decided which of the three competing processes will be used.

In collaboration with Finsider of Italy, NISIC is to construct the Bandar Abbas steel mill fed with gas from Queshm with a production of 2.5m. tons of liquid steel which will be processed into hot and cold rolled sheets. The plan is that Finsider (together, it appears, with Italsider) which will probably manage the plant in return for providing much of the machinery will take an equity participation in the rolling sections. Pre-project and feasibility studies are complete and the site is selected, but more work remains to be done on the infrastructure, in particular the second half of the next tidal sea water desalination, and one of the more significant special port facilities. It is hoped that the project engineering will begin in the autumn and that the integrated

Robert Graham



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IRAN XIV

The Government's efforts to boost agricultural production is having only limited success. Snags in other sectors of Iran's economy are slowing down progress. One answer, as the second article suggests, may be sweeping plans for greater control of land use.

Food shortfall

THE IRANIAN farmer has mutton, 450,000 tons of sugar and 350,000 of rice. By any yardstick—Western or Eastern—the Iranian country-side does not present an easy row to hoe. Until recently the land was mostly a forbidding expanse of shifting sands and sagebrush, searing sun and scant water where only the most hardy of farmers would try to wrest a living. Rainfall, that most precious of farming commodities in thirsty Iran, is scant—averaging only some 300-350 mm. each year—and less than one-third of the country's total 1.6m. sq. km. area is cultivable.

Targets

Iran only really started to come to terms with these problems at the start of the Fifth Development plan in 1973. Most of the early 1980s was taken up with land reform and the traumas of redistributing land to Iran's badly depressed peasant-farming community. During the Fourth Plan (1968-1973) the Iranian farmer was to play second fiddle to the Iranian industrialist: credit was in short supply, there was too little fertiliser and even less expertise, targets went badly unmet and the massive import of basic foodstuffs became a matter of course.

In a bid to righten these wrongs, the Fifth Plan was launched in 1973 with agriculture promised top priority along with such other basics as housing, health and education. A good proportion of the new government funding is currently being put toward making agriculture as potentially an attractive investment as Iran's profit-oriented industrial sector.

High on the planners' list of priorities came water resources. With less than half the 8.4m. cultivable hectares under "wet farming," Iran is periodically the victim of either severe drought or devastating floods. Last year's poor wheat harvest—officially reckoned at 4.9m. tons, but unofficially put at 3.7m.—was blamed on an acute lack of rainfall during the vital germination period of March through June. To break the farmer's heavy dependence on unpredictable weather, the total hectareage of wet-farm lands is to be raised from 3.6m. to 4.12m. and the use of water made more efficient—i.e. raised from to-day's efficiency rate of only 30-35 per cent to somewhere nearer the 85-95 per cent. rate that is common on farms in North America.

With profit in mind, a massive new loan and subsidies programme was set up last summer under which both local farmer and foreign partner can get low-interest credits and ask the Government for help in paying huge chunks of costly planning and infrastructure work. This is in addition to a ten-year tax holiday and is Mr. David Lilienthal, the overseer of the successful Tennessee Valley Authority project in the U.S. was persuaded to make a tour of the neglected province of Khuzestan in South-West Iran. The upshot was an ambitious development programme that in essence included the building of 14 dams to control the waters of Khuzestan's six principal rivers, the creation of an extensive hydro-electric

power system and an integrated plan to turn 1m. hectares of virtual desert into irrigated farmland. One of the showpieces in Khuzestan to-day is the Government-owned Haft-Tappeh sugar plant which boasts one of the world's highest unit yields—nearly 12.5 tons of refined sugar per hectare—and the nearby paper-making plant that uses recycled cane waste. The success of Haft Tappeh is hopefully soon to be reproduced at Daimcheh where a combination of ADBI and Industrial Mining and Development Bank of Iran funds are currently concentrated on a 6,200-hectare area that will produce some 200,000 tons of sugar a year and an equal quantity of paper.

But problems, even in Khuzestan, are never far from the surface of Iranian agriculture. For example, Iran California—is "going regional" and, with an agri-business venture whose shareholders include big American corporations, private Iranian and the Khuzestan Water and Power Authority—is currently grappling with management problems and a shortage of Government-promised water for lands recently put under the plough. Again, one of Khuzestan's pioneers, pistachio king Mr. Hashem Naraghi, was suspected last year of mismanagement: he abruptly pulled up stakes and left his large landholding for the Government to farm.

Livestock

Further hopes are meanwhile being pinned on the 11 large-scale agri-business projects, including Haft Tappeh, that the Government is handling throughout the country. Among them is the huge livestock venture in Moghan in north-west Iran and the big sheep farm in the south where on the Plain of Marvdasht the nomadic tribesmen are being encouraged to co-operate in a \$20m. project that will lift Iran's mutton production by some 25,000 tons a year. A sophisticated network of veterinary stations and stockyards is currently being built up and breeding animals, chiefly from Australia, imported.

Lower down on the agri-business ladder comes (1) the private entrepreneur who is either going it alone—usually with Government credits—or forming joint companies with the Government or foreign specialists; and, (2) the Government-sponsored farm corporations and production co-operatives which are basically made up of small farmers who agree to work together and who subsequently go heavily into mechanisation.

Finally, in the unlikely event of all else failing, Iran has recently been considering diverting some of her new wealth into farming projects abroad. A joint venture livestock project is soon to get under way in Pakistan and Iranian agronomists are now looking deeper into the prospects of joining forces with countries as far afield as Australia, the Sudan and Latin America.

Liz Thurgood

Agribusiness on the farm

THE KEY to success in Iranian agriculture to-day may well lie in a little-heralded bill that promises to revolutionise life on the Persian farm. If carried out to the letter, thousands of small-time farmers will be virtually forced to "go mechanised."

The bill is part of a larger land consolidation programme that in addition to redrawing the map of rural Iran is intended to halt the still substantial drift to the cities of unskilled workers in search of better life.

Shah signed into law by the bill further highlights official concern with the relatively indifferent performance of Iranian agriculture. Despite an ambitious growth-rate target of 7 per cent a year during the Fifth Plan period output is unofficially reckoned to have increased by only some 3 per cent in 1974.

The new bill aims to remedy this state of affairs by concentrating almost exclusively on the country's richest agricultural lands—an area covering

15m. hectares and traditionally ploughed by many of Iran's 2.2m. small farmers. Under the new bill this land will be brought under the control of the recently-founded Regional Agricultural Development Organisation in the form of "agriculture poles" and turned into what can be loosely described as State-sponsored agribusiness.

A great deal will depend on how the Government decides to interpret the new law. If all the dots and the t's crossed—which seems increasingly likely given the critical state of agriculture to-day—then those farmers who choose to turn down the Government's offer only 2.5-made mechanisation of agribusiness ventures will levelling and irrigation work and their land automatically important. The acutely manpower-short Ministry has been finding it increasingly difficult to staff its Agriculture Extension Service with the result that much of the new farming knowledge is simply not reaching the

Such ruthless reform is the political price Iran's small farmer and much of the

CONTINUED ON NEXT PAGE

IRAN XV

Tehran is an environmentalist's nightmare, with some of the most appalling traffic jams in the world, pollution, congestion and ugly, sprawling development. Population is exploding and services are under extreme strain. What is being tried to right the situation and what success is likely.

Tehran nightmare

IF ANYONE wanted to choose a modern setting for Dante's *Inferno* they could do no better than come to Tehran and witness a midday traffic jam in the summer heat: long lines of clogged cars with frustrated drivers jostling to escape home from the fumes, dust and 100 degree heat but held up by broken down cars with overheated engines, minor collisions and careless pedestrians. Traffic is probably the biggest single imposition in a Tehran day (a traffic police study estimated that each car spends a minimum of one hour per day in jams). But there are many others. Tehran contains just about every pet hate in the environmentalist's book.

The city is polluted, congested, growth has outstripped resources and now a vast ugly urban sprawl is gobbling up all available wasteland. The city is pushing relentlessly uphill into the Alborz foothills, like a drowning man trying to grab a lifeline, in the search for cool mountain air and more relaxed living, leaving behind the mud brick buildings and the old bazaar centre. So much so that it is now a city without a centre and in search of a soul—if anyone has time to give it one.

Top-heavy

People are in Tehran because they have to be. This is the centre of the action, and the action is such that more and more people, whether Iranians or foreigners, are being drawn to live here. Its population, at present reckoned to be 4.2m., is growing at 6 per cent. a year, out of all proportion to other urban centres in the country. Already it is seriously top-heavy in relation to the rest of the country. For instance, it contains 14 per cent. of total population, 22 per cent. of all manufacturing workers, 63 per cent. of all students and 67 per cent. of all registered cars. Car ownership in Tehran is roughly 1 to 15 against 1 to 90 for the country as a whole. Per capita income of \$2,100 is almost double the national average.

The pressure on services is enormous. Housing just cannot cope with demand and rent have skyrocketed. Rent freezes only affect very low income groups and there is a huge cross

section of society caught in the claws of greedy landlords who have a sellers' market. The sudden and massive inflow of foreigners has had its effect too. Due to shortages of medium and luxury houses and apartments, prices have gone up by over 30 per cent. on rents this year. By the end of the year it will be virtually impossible to find a reasonable two/three bedroom house or apartment with swimming pool (the norm for foreign executives) under 100,000 rials per month (\$1,500). Iranians returning from abroad are finding it just as tough since landlords have taken a preference for foreigners. The influx has led to overcrowding in schools.

Foreign schools are packed to the limit (and some have found difficulty in hiring buses with drivers to pick up school children). The kind of contracts being signed anticipate a further substantial inflow. Grumman for instance are bringing in another 1,000 families, and it is hard to see what will happen. To find a hotel room without two months booking is almost more difficult than the search for the Holy Grail. In hotel lobbies there are frequent scenes of angry businessmen brandishing confirmed bookings to receptionists who just shrug their shoulders. The receptionists have done this so often now that they do not even bother to apologise. The Hilton, Sheraton and Intercontinental blandly say "booked up for the next three months." Some businessmen have ended up sleeping in private clinics, while one Japanese is said to have gone to a mosque.

But it is not just hotel space and housing which are creaking under the strain. The city does not have a proper sewage system (though studies are under way by Sir Alexander Gibb and Partners to provide one) and it still relies upon open drains, public transport is limited, and telephones are both in short supply (over 150,000 persons on the waiting list) and the lines overloaded. It can take a whole morning to make two phone calls. Moreover, due to extensive public works, lines are frequently cut. One hotel, which even had guests for a State visit, was without telephone and telex for a week. International phone calls, except direct from the Central Post Office, take hours,

even days to materialise while existing telex lines are in short supply and overloaded. Doing business here is a constant battle with the communications and the traffic. A situation summed up by one businessman who with complete straight face said: "I'm here for eight days to do three days business." But such are the carrots dangled by Iranian economic development that businessmen still keep coming and at one stage in the past 18 months practically every carpet bagger in the Western world has knocked on Tehran's door—not always with success.

Energetic

There is a general consensus that things will get worse before they get better. The city has an energetic mayor who is determined to get things done, but there are so many priorities it is hard to see what comes first. Perhaps the greatest priority is to stem the city's alarming growth. It is reckoned that the city's facilities at present can support a maximum of 6m. persons. After that the question of water supply (Tehran uses 1.2m. cubic metres of water per day against 800,000 two years ago) becomes acute. Already there is talk of rationing next year. There is also the question of the electricity load (cuts are frequent at the moment) and more importantly space for housing. The Government has taken the initiative by seeking to discourage further centralisation round Tehran. In future more will be done in the provinces and there is a virtual ban on new factories within a 120 kilometre radius of the capital.

Planners maintain that one of the problems is that there has been little urban renewal in the old part of the city. This appears to have been partly due to the uncontrolled expansion north to the mountains and west towards the airport, but also due to policy. The downtown area still houses the bulk of the ministries but the aim is to move them "up the hill" to a newer, less polluted and less congested environment. The heart of the scheme is a huge development in what is believed to be the largest undeveloped area in any city. The area is still barren hills, wedged between new development, and has been bought by the municipality largely from

the army in 12,000 separate deals costing a total of \$1.5bn. The plan, drawn up by British consultants Lilwely Davies, envisages a new town of 70,000 people. Primarily this will house Government offices, embassies (if they choose to move) and medium and upper income housing. The municipality will provide all the infrastructure but will hand over construction to private enterprise only controlling design and planning. To prevent land speculation purchasers will only be able to resell once they have constructed. For a long time it was thought that this new town, to be called Shabestan Pahlavi, would never get off the ground. The project's critics argued that it would only add to Tehran's problems, and that it would have been better to turn it into a green space and concentrate on urban renewal.

However, in the end it was decided the new city centre was the only way of ensuring that Tehran functioned efficiently as a business and administration centre—the current loss of productive time through commuting, traffic jams and inadequate communications is tremendous. Thus the Shah will inaugurate the project next month.

Parallel with this the municipality, in conjunction with French assistance, is pressing ahead to introduce a metro system—a project which has been discussed for years. Initially some 150 kilometres of line will be laid but no date for start up has been given. The cost per kilometre is reckoned to be \$15m. In the meantime the municipality will buy more buses which will begin operations shortly, provided of course the necessary drivers can be found: the shortage of bus drivers is desperate at the moment.

Everyone says that Tehran is not representative of the rest of the country, and this almost certainly is true. Nevertheless, the pressure of change and rapid growth imposed on Tehran's old and newly developing structures are a microcosm of the country's problems. The ability to come to terms with the modernisation of Tehran will in no small measure affect the country's development as a whole.

Robert Graham

NATIONAL IRANIAN OIL COMPANY

A speech given by the Chairman and General Managing Director Dr. M. Eghbal

Addressing the annual dinner of the Iranian Petroleum Institute on Thursday, February 6th 1975, the NIOC Chairman Dr. Eghbal said:

"Following termination of the Agreement of 1954 with the Consortium, establishment of Iran's full control and sovereignty over the country's oil resources and industries in August 1973 under the leadership of head of the state, and conclusion of a new oil sale and purchase agreement with the Consortium's trading companies, a basic revision was made in the Petroleum Act and a new law was enacted in 30 Articles. In this new law Iran's oil policy and the tasks of the National Iranian Oil Company have been precisely and clearly determined with due regard to recent developments in the world petroleum industry (which were also achieved under the Shahanshah's auspices). The new law authorises the National Iranian Oil Company to carry out exploration and development operations in the free oil zones through conclusion of contract agreements with foreign companies.

"By virtue of the new Act six new agreements were concluded last summer with foreign companies. These agreements known as exploration and development agreements are different from the former contract-type agreements since unlike the latter the contractor is not entitled to receive oil at cost price (production cost plus income tax). After termination of exploration period and commencement of production from the commercial fields the production operations will be undertaken directly by the National Iranian Oil Company, while the second party will start purchasing 30 to 50 per cent. of crude production with discount rates from 3 to 5 per cent. under a 15-year sale agreement to be concluded. Besides, a total of about \$50 million was received by NIOC from the other parties as signature bonuses."

Dr. Eghbal then dealt with achievements of Iran's oil industry within the framework of OPEC with reference to the Organisation's meetings during the last year which resulted in an increase of royalty payments and intake of OPEC governments. He then referred to Iran's oil industry developments during 1974 and said:

"In 1974 Iran's oil industry made tremendous achievements. Although the increase in crude oil production and export was not significant, the country's oil revenue was raised considerably. Iran's total crude production amounted to about 350 million cubic metres, showing a rise of 2.7% over 1973. Also the country's total crude exports reached nearly 312 million cubic metres, which was 1.7% higher than the previous year. The country's revenue from oil during the year under review has been estimated at over 18,000 million dollars, four times that of the previous year."

"In 1974, as a result of efforts made, two new fields were added to Iran's oilfields. A total of 100 wells were completed and total oil drillings in Iran amounted to about 330,000 metres."

"During the year under review the country's oil refineries operated to maximum capacity processing 625,000 barrels of oil per day."

"Construction of the second Tehran Refinery with a capacity of 100,000 b/d, which started in March 1973, is nearing completion and will soon be commissioned. The project will cost about 10 billion Rials. Crude needs of this refinery will be supplied through a second Ahwaz-Tehran pipeline. This pipeline, which has been constructed to feed Tehran, Tabriz and other expected refineries, is 735 kilometres long including 228 km 30 inches in diameter and 507 km 26 inches. The project for expansion of the first Tehran Refinery to 125,000 b/d is under way and will soon be completed."

"The Lubricating Plant of Tehran Refinery with annual capacity of 120,000 cubic metres has been completed at a cost of 2,930 million Rials and is now operating. Preparations have been made for the construction of refineries in Tabriz and Isfahan. Contract for construction of Tabriz Refinery was signed on 10th March 1973 and its construction is expected to be completed by winter of 1976. A project has also been prepared for construction of a 200,000 b/d refinery in Isfahan."

"Consumption of refined oil products during the year 1974 totalled nearly 17 million cubic metres, 14% higher than the

previous year. With creation of 252 new filling stations and retail sale centres the number of centres for internal distribution of products reached 12,323."

"In 1974 direct crude exports by the National Iranian Oil Company increased considerably. Total crude oil supplied to NIOC under the new oil sale and purchase agreement and also by mixed companies for direct export amounted to 24.3 million cubic metres valued at 1,977 million dollars which was about 28 per cent. higher than the previous year in quantity and 4.5 times in value."

"A new project called Kharg V is under way to increase loading capacity of the Kharg Terminal. With the completion of this project, probably by October 1975 Kharg will be able to receive more tankers of 300 and 500 thousand tons for loading."

"During 1974 efforts were made by the National Gas Company for expansion and exploitation of gas resources, increase of gas exports and further extension of gas supplies to the cities. Total gas exported to the Soviet Union amounted to over 9 billion cubic metres, showing a rise of 4.8% over the previous year. During the year under review a total of 1,919 million cubic metres of gas was distributed and consumed within the country, 42% more than the previous year. Study and survey of projects for the supply of gas for home and commercial uses in the cities of Shiraz, Isfahan, Mashad, Ahwaz and Tehran have already started and in Tehran the industrial gas network has been completed with the result that 41 industrial units in Tehran are already using natural gas and this is expected to be extended to 80 units by next year. Meanwhile, arrangements have been made for the use of gas by factories manufacturing construction materials in Tehran to help ease air pollution. As regards gas supply for home use, already districts such as Tehransar, 9th of Aban District and Nazabad are already using gas and the main project has been completed for the extension of the service to northern parts of the capital."

"A letter of intent was signed last winter with Elpasco, Distigas and Sopex to create a joint venture for export of NGL to Europe and the United States. The estimated cost of this project is \$5,900 million which includes development of facilities in Iran and purchase of 34 special gas carrying tankers. The National Gas Company's share in this joint venture is 50 per cent."

"An agreement was signed last summer between Pipe Making Company and the America's TME International and Kaiser Steel for the establishment of two new pipe making mills of 240,000 tons/yr. each for making pipes of 8 to 22 inches and 24 to 66 inches. The project will cost about \$77 million and is scheduled to be completed within 24 months."

"During 1974 the National Petrochemical Company continued activity for the creation of new plants and expansion of production capacity of the existing ones. The carbonate and bi-carbonate of soda plant, which is the first phase of expansion of Shiraz Chemical Complex, was commissioned last April in the presence of the Shahanshah Aryamehr. Production capacity of this plant includes 33,000 tons of carbonate of soda and 10,000 tons of bi-carbonate of soda, which presently meets internal requirements. The project was completed at a cost of 1,290 million Rials. The project to boost the production of P.V.C. by Abadan Petrochemical Complex from 20,000 tons to 60,000 tons is already under way. Construction of Ahwaz Carbon Black factory was completed last year and its experimental operation started. The plant, one of the most modern of its kind, can supply 95 per cent. of domestic needs. The shareholders of this plant include National Petrochemical Company 20%, Industrial Development Bank 10%, World Bank 10%, private sector 10% and Cabot Company 50%."

Dr. Eghbal concluded that all these achievements by the country's oil industry could be attained under the enlightened guidance of the Shahanshah Aryamehr and through the efforts of his colleagues in the oil industry. He hoped that in this year, too, the industry would make still greater achievements towards expansion and development."

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Agribusiness

CONTINUED FROM PREVIOUS PAGE

potential of the country's best agricultural lands is being wasted.

All farms which fall under the agribusiness of the new polarisation bill will be combined into units of not less than 20 hectares—the size considered economically viable for large-scale mechanised farming. Although the farmers will not feel the full brunt of the new bill for another two or three years—the time it will take for Government survey teams to draw up a comprehensive map of Iran's richest agricultural lands—Ministry officials are currently pinning their hopes on a 13bn. rival project that with World Bank help is soon to get under way in the province of Kermanshah in western Iran. If successful, the project will almost certainly give the Government a far freer hand in tackling the agricultural polarisation of the country's remaining 20 provinces.

The agribusiness "pole" bill is increasingly viewed in Tehran as a natural extension of the 1962 Land Reform Act that gave Iran's millions of depressed peasants a chance to own the land they tilled. Later to be incorporated into the White Revolution as Point No. 1, land reform was the Shah's

springboard for his ambitious development plans. But, as it became increasingly clear in the late 1960s, land reform—as it was originally conceived—could not be counted upon to solve the multitude of problems that even to-day bedevil life on an Iranian farm. Land reform was conceived not as an economic tool but primarily as a political tool—and to this end it has worked with exceptional efficiency. The redistribution of the huge private estates was to break much of the power of Iran's all-powerful land-owning classes who in the late 1950s and early 1960s were making life increasingly difficult for Iran's young monarch. More important, perhaps, land reform won grass roots support for the Shah among the new farmer-cultivators and enabled him to move on to even tougher reform that would have proven next to impossible without the "eternal gratefulness" of at least one sector of the Iranian people.

Technical

Despite the new importance attached to Iranian agriculture, however, the late 1960s saw the farmer still left holding very much the short end of the stick. The economy seemed finally poised to make its long-awaited "take-off" but, largely due to an acute lack of agriculture funding in the Third and Fourth Plans, the Iranian farmer was nowhere in sight. Instead of applying the new technical know-how that was starting to yield results on the farms of more prosperous Iranians, most of the country's farmers were barely able to support their families and relatives, let alone the seemingly insatiable appetite of the increasingly affluent urban Iran.

As early as 1966 Agriculture Minister Nansour Rouhani, who at that time was heading up the country's energetic dam-building programme, published a paper advocating the need for "areas of intensive farming and stock-breeding." But his proposal—basically a forerunner of today's

agribusiness "poles" bill—was obviously not acceptable: the second stage of the three-stage Land Reform was underway and it was generally recognised that the new, albeit modest, landowner would not take kindly to being told what to do with his newly-acquired land.

The net upshot was a very real Government attempt to fill the vacuum from the top. Leaving the smaller farmer largely to his own devices, the Agriculture Ministry stepped up its campaign to attract the private investor—both local and foreign—to join hands with the government in new agribusiness. With the advent of the Fifth Development Plan in 1973 the large-scale farmers were provided with massive Government funding and given the option to participate in an ambitious incentives programme.

In much the same way, the Ministry of Co-operatives and Rural Affairs—in whose hands the fate of the smaller farmer largely lies—turned an increasingly attentive eye to the setting up of farm corporations and the generally more popular production co-operatives. (Unlike the 65 farm corporations where the farmer exchanges the title-deeds of his land for a share in a Government-financed agribusiness company, the production co-operative is basically a getting-together of like-minded farmers who agree to pool their resources for more mechanisation and higher crop yields). Membership of both groupings is currently at the 30,000 level. By 1978 the number of farm corporations is expected to reach the 140-mark and, together with the 60 production co-operatives, covers a total area of between 3-400,000 hectares.

Exact replicas of the farm corporation and production co-operative will form the cornerstone of the new agribusiness "poles." But whereas nothing stronger in the path than gentle persuasion was brought upon the farmer to join up, now they may well have to choose between joining up or selling out.

Such radicalism down on the farm is highly preferable, argues the Government, to becoming increasingly dependent on imported foodstuffs and bowing to the whims of the international commodities market. Consumption projections show that the country's food requirements are likely to increase from 245bn. rials in 1971 to 1,300bn. rials in 1987. Rather than continue footing the increasingly hefty bills of the foreign farmer, the Iranian Government is making a very determined attempt to get a head-start with its own farmers.

Experiments

What makes this all the more urgent is the slow growth of mechanised farming in Iran and the subsequent long faces in Government. The ministry was hoping for faster results and had not apparently taken into serious account the number of years that must be spent on soil and planting experimentation before an agribusiness can go into full-time production.

The farmers outside the designated agribusiness "poles" will continue to be taken care of by the Rural Co-operatives. Originally set up to replace the landlords, their numbers have been gradually pared down from 8,400 plus in the mid-1960s to a more manageable 2,790, with many being further merged into farm corporations. The main task of these co-operatives is to channel low-interest credit to its 2.5m. members and to help out on the marketing and distribution side. Recently introduced incentives include a Government fund scheme that will enable the farmer to pay off his debts too, and eventually undercut the ubiquitous middleman; a 10bn. rial allocation which the Government will use to buy up surplus produce; and the launching of an extensive and badly-needed warehouse and cold storage network.

Liz Thurgood



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IRAN XVI

The massive increase in imports at this time of rapid growth has left Iran's ports badly congested. There are plans for their development and other infrastructure projects.

Port congestion

EARLIER THIS year one of the games frustrated importers used to play was to take bets on the number of ships waiting at Khorramshahr—Iran's largest non-oil commercial port on the Shatt al Arab waterway. At its worst there have been over 110 ships waiting up to three and even four months to discharge. The Iranian authorities have made valiant attempts to improve matters and a series of emergency and long term schemes are now under way. Nevertheless the limited handling capacity of Iran's ports, through which almost 90 per cent. of all imports pass, has proved one of the major bottlenecks in the economy. The manner in which the ports, and related infrastructure, can be improved and expanded will determine in large measure the country's ability to achieve its ambitious economic development programme.

Structure

When last year it was decided to double the Five Year Development Plan (1973-78) the port structure was wholly inadequate to cope. Total nominal capacity was only 3.8m. tons per annum and originally it was anticipated that capacity would only need to be raised to 9.7m. tons by 1978. The doubling of the plan resulted in huge pile ups and backlogs. At one stage Khorramshahr had accumulated over 500,000 tons of cargo because it was receiving at a rate of 15,000 tons per day and was moving only 12,000 tons. By operating continuous shifts at all ports it was possible to handle a total of 9.8m. tons in 1974-75, or over 300 per cent. of the nominal capacity. This did help to clear some of the backlog and at present Khorramshahr has cut waiting time to between 35 and 40 days and only 60 ships are now waiting to discharge. Even so the situation is critical. This can be gauged from the 2,000 trucks and 6,000 trailers that Khorramshahr handles 44 per cent. of all non-oil cargo. Iran has seven principal commercial ports of which all the important ones are on the Gulf.

These Gulf ports handle 91 per cent. of all seaborne trade. Bandar Shahpur together with Khorramshahr handle 77 per cent. of total trade. The only Caspian port of any significance is Bandar Pahlavi which handles about 7 per cent. of total trade. The main emphasis has been, and will continue to be, on the Gulf since shipping to Caspian ports depends upon the Volga-Don canal which is only open for four months in the summer.

The aim now is to boost nominal capacity by 1978 to 28m. tons, which the authorities estimate could give a total capacity in the region of 60m. tons per annum on a continuous shift basis. (Currently the ports are handling 1m. tons a month.) The cost of this expansion programme is expected to be over \$1,250m. This will be coupled with improved warehousing and nationwide co-ordination of distribution through expanded railways and better roads.

At Khorramshahr a team of South Koreans have begun a \$32m. emergency project to build three special jetties which should be completed in seven months. The major expansion scheme will take place at Bandar Abbas. Here a new port will be built with a 15m. tons nominal capacity including such facilities as container berths and roll-on-roll-off wharves, and a free zone.

The port authorities are confident that they will soon have the situation in hand. Indeed it is hoped that the heavy shipping and climatic conditions, which brought Iran into the world's telecommunication network. The date was 1937 and by 1985 some 36 per cent. of the world's telegraph services were passing through the Iranian network via the three British built connections into India. The first telephone system was installed in 1885 in Tehran only nine years after Bell had first demonstrated the principles of telephony.

Despite these early firsts, the Iran telephone system got off to a slow start, due to financial difficulties and the advent of two world wars. At the end

of World War I the bulk of new telephone equipment ordered for installation in Iran disappeared on its way through the Russian. Another calamity occurred when equipment ordered to expand the first automatic exchange installed in Tehran in 1937, was delayed by the outbreak of World War II. Modern telecommunications made their debut in Iran with the CENTO system which permitted direct dialling between Ankara, Tehran and Karachi. This system was opened and ready for operation in 1965 and forms the backbone of the newly completed INTS network which brings Iran into the modern telecommunications age.

Prior to the completion of the INTS system many private companies and Government

agencies operated their own extensive and viable networks. These systems had been built because of the lack of PTT facilities. Some have been incorporated into the PTT INTS network and some have been leased by the PTT; but the long term objective now rapidly being achieved is for the whole of the Iranian telecommunications system to be completely integrated. Some agencies will still require their own networks but these will supplement rather than duplicate the Ministry of PTT's INTS network.

The Iranian Plan and Budgetary Organisation has initiated a plan to determine the best way to expand the CENTO system and at the same time to

upgrade the existing Iranian telecommunications network. The main objective of the study was to provide other routes for communication and to provide a better service to all Iranian communities.

The consultants for the CENTO link, the American TAI Inc., together with Iranian Consultants Farmanfarmaian, were employed to carry out feasibility studies to determine requirements for a viable telecommunications system designed to meet the planned objectives.

The operation and maintenance of the telephone system is the direct responsibility of the Telecommunications Company of Iran (TCI).

Expansion plans already in hand include the provision of telecommunications facilities to every corner of Iran and the development of a University of the Air of the type pioneered in U.K. Direct dialling from any Iranian village to any country in the world is also on the way by means of satellites already purchased. The French Secam colour television will come en masse to Iran when regular colour broadcasts take place this September.

An electronics industry to back up the communications projects is already through its embryonic stages and rapidly taking shape at Shiraz.

An Iranian Standards Institute is operating in Iran and is presently laying down standards for a standard commercial TV receiver to cut costs and expand the market in Iran.

Current expansion plans for the telecommunications system call for an additional 2m. subscribers by 1978 under a programme, codenamed 3M56, which is being implemented by the TCI Company.

Colleges

The building of a new telecommunications system from scratch helps to delay the making of expensive decisions, akin to those now being made by Western nations who have to decide whether to scrap their existing telecommunications system to rebuild and incorporate new technical developments. However, the fast, in-built inherent changes created by electronic R and D may have some effect in the future. When that time comes the present shortfall of 30,000 engineers and 70,000 technicians may well have been solved because technical colleges and schools now being built and current training plans reaching maturity, will provide a constant stream of graduate engineers and technicians.

An interesting aspect of modern Iran's communications is the dialogue currently taking place regarding the Iranian weekend. Based on the Moslem calendar, Thursday and Friday form the Iranian weekend. However, with money and product markets still operating in the Western world on these days, business interests in Iran, and many Government departments, are seeking to change the weekend to Friday and Saturday to take advantage of an additional day for commercial transactions.

Edwin Luck

work. The project includes new tracks along the existing 350-kilometre line connecting Bandar Abbas with the Iron ore mines of Golshahr and extending the tracks and additional 350 kilometres to Bafq. Already operating is a turbo-train, supplied by the French Turbomeca, between Tehran and Meshed which has halved the journey to eight hours.

These improvements will take time and will have to be combined with a streamlining of customs procedures and increases in customs personnel. Earlier this year the border at Jolfa was closed for almost two months largely because the customs could not cope. At Tehran airport airfreight is piling up and customs officials are working to their limits, but even so some airlines have been

Robert Graham

Despite an early start, telecommunications development in Iran was badly held up until a few years ago. It is now catching up fast with a completely new national system built and plans made for expansion.

Telecommunications

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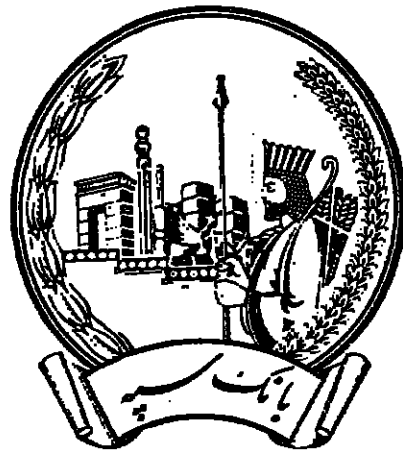
upgrade the existing Iranian telecommunications network. The main objective of the study was to provide other routes for communication and to provide a better service to all Iranian communities.

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مکزیان الی

Final documents of the Conference on Security and Co-operation in Europe will be signed in Helsinki this week. Malcolm Rutherford reports

Mapping the Helsinki route to detente

SHORTLY AFTER the death of Stalin, the Foreign Ministers of Britain, France, the Soviet Union and the U.S. gathered in Berlin. According to an official note on the meeting, Mr. Molotov, the Soviet Minister, "proposed that all European countries conclude a 30-year Collective Security Treaty; Germany to be neutralised and remain divided. The West favoured German reunification and free elections."

That was in February 1954, and Mr. Molotov's proposal was perhaps the first official reference to what was to become the Conference on Security and Co-operation in Europe (CSCC), the final documents of which will be signed by representatives, mostly heads of government, of 35 states in Helsinki this week. The signatories are composed of all the states in Europe, except pro-Chinese Albania, plus the U.S. and Canada.

Diplomacy

As can be seen from the opening quotation, both sides have moved a long way since then. The documents, which were agreed by officials meeting in Geneva over the past two years, are not a security treaty; indeed they are not a treaty of any kind, since none of the resolutions are binding. There is no mention of the neutralisation of Germany, either East or West; indeed it is assumed that they will remain members of their respective military blocs. There is no call for free elections in the German Democratic Republic and German reunification is only indirectly referred to in a safeguard clause allowing the possibility of the peaceful change of frontiers.

The documents are also immensely long—some 30,000 words of badly written prose. Yet reading between the lines it is possible to trace the course



Mr. Brezhnev (centre) made the Conference idea his own, and the election of Herr Willy Brandt (right) was presented by both sides as the turning point.

of East-West diplomacy over the years, to see which positions have been upheld, which abandoned and which watered down, and to recognise the contribution of the neutrals who emerged as a third, and often very liberal, force during the Geneva stage of the Conference. It also becomes clear that Helsinki is not the end of the road. It is simply part of the process of seeking detente, by which is meant the relaxation of tensions, without giving away essential positions.

On the eastern side, it was Mr. Brezhnev, the Soviet party leader, who really made the Conference idea his own. He wanted a European peace treaty ratifying existing borders and confirming Eastern Europe as a Soviet sphere of influence. He also wanted access to western technology for the development of Soviet natural resources and once the Conference began with multilateral preparatory talks in Helsinki at the end of 1972, he wanted it to end with a grand summit meeting. It is possible that he sees it as the crowning achievement of his career, to be followed by a second strategic arms limitation agreement (SALT 2) with the U.S. in the autumn and the 25th Soviet Party Congress at the end of February, which could yet see his triumphant retirement.

Good faith

To the West, Mr. Brezhnev appeared to want these things so badly that he was prepared to pay a price. In the late 1960s, east-west diplomacy seemed to be conducted through a series of separate meetings of NATO, and the Warsaw Pact, each sending signals to the other. In 1968, the NATO Council sent out the "signal from Reykjavik" suggesting that it was softening its reservations about a security conference, but setting as a condition negotia-

tions on mutual and balanced force reductions (MBFR). Another condition was that the Russians should show their good faith by contributing to the solution in and around Berlin—the greatest single area of cold war tension. Both these western conditions were met in time. Preparatory talks on MBFR were reduced to Central Europe opened in Vienna in early 1973 and the full MBFR conference later the same year. In the meantime, the four war-time allied powers, Britain, France, the Soviet Union and the U.S., had signed the Quadripartite Agreement on Berlin, which remains the most tangible achievement of detente to date.

Frontiers

It is doubtful, however, how far all this would have happened without a mutual change in attitudes between the Soviet Union and West Germany. The West German Ostpolitik goes back at least until the mid-1960s and the softer Soviet policy towards Bonn predates it

holding of the European Security Conference.

Nothing in the documents to be signed in Helsinki goes beyond these treaties and, if anything, the purpose of the "Letter on German Unity" has been reinforced. The first of a set of ten principles guiding relations between the 35 participating states includes the sentence: "They consider that their frontiers can be changed, in accordance with international law, by peaceful means and by agreement." The wording is vague (for example, by agreement with whom?), but at least it is an antidote to the third principle which says that the participating states "regard as inviolable all one another's frontiers as well as the frontiers of all states in Europe."

In a sense, Mr. Brezhnev already had what he wanted, even if it was not in the form of a collective pan-European security treaty, and it amounted to something that the West was not seriously prepared to challenge. The surprise thing was that he was prepared to go on making concessions in order to make sure. He did so both on co-operation in the field of economics, science and technology and on human contacts, which respectively form Baskets 2 and 3 of the final documents.

Technology

Much of Basket 2 is a thinly veiled expression of Mr. Brezhnev's desire for access to Western technology, but again the West had already shown its own interest in long-term contracts with the East, and companies like Mannesmann or Krupp found them a welcome insurance against domestic recession. The potential advantage of Basket 2 is that it could reduce some of the practical obstacles to trade. To take only two examples: there is a joint resolve to promote more regu-

Superiority

Claims that this situation is intolerable will be a major theme of western speeches in Helsinki this week. Certainly, the MBFR negotiations look like becoming the main focus of detente. There could well be movement in the autumn with the tabling of new proposals. The main western aim in MBFR is to establish parity in conventional, and ultimately perhaps also tactical, nuclear forces. This would match the parity already broadly agreed between the Russians and the Americans in strategic weapons. That itself will not ensure peace, any more than the first SALT agreement prohibits the superpowers from engaging in qualitative competition in the strategic field. But it does mark a return to the historical concept of the need to preserve the balance of power. Since the Security Conference also accepts the territorial status quo, comparisons with the Congress of Vienna do not seem unduly far fetched. The purpose of that Congress was broadly to restore the territorial limits of 1805 and to maintain the balance between the great powers. As it happened, Russia was the major gainer. It need not happen this time.

Letters to the Editor

Government double-talk

From Sir Moly Crofton, Leader of Kensington and Chelsea Council.

Sir—There is a continuing and flagrant dichotomy in the Government's attitude to local authority spending. We are castigated on the one hand for over-increasing statutory responsibilities which are placed upon us. The Community Land Bill requires that local authorities recruit expensive staff to take over the role of existing private developers.

Mr. Healey's White Paper on inflation says: "Unless staff numbers are strictly restricted the Government will have to reconsider the scale of provision of grant."

What are local authorities to do when faced with this kind of Government double-talk? This Bill alone would mean a staggering staff increase of 12,000, and a cost of between £300-£400m. This may be too much for the local authorities, but for the next few years it will be a direct addition to the Government's already too-high borrowing requirement.

Whom are we obey? Should it be the Secretary of State for the Environment or the Chancellor of the Exchequer? We are writing to the Prime Minister for a directive. I do not think that our overseas creditors are going to believe in the Government's new policies or, more importantly, in sterling. This sort of double-talk and doctrinaire nonsense is permitted to continue. If the Government is to secure the consensus about which it so frequently talks, then it must at least drop the more doctrinaire of its present policies. Moly Crofton, Town Hall, Kensington, W.8

A state within the state

From the Director and Secretary of the Medium and Small Employers' Federation.

Sir—It was forecast to Parliament 150 years ago that legalised trade unions would eventually create a state within the state. Most far minded commentators would agree that a major portion of our nation's difficulties emanate from the fact that we do not have a sovereign Parliament, or even a sovereign Government. We do not even have what might have been called a "municipal" parliament if, in fact, membership of the EEC has rendered us subject to Brussels.

No, indeed. What we do have is the worst possible system—worse or as bad as the theocracies which used to be such a disability in Europe. We have a veto which is subject to a veto of a totally irresponsible outside body—the small cadre of trade union officials who manipulate the Trades Unions Congress. This could not be better illustrated than by the present Government's gratifying approval for a proposed Bill, the contents of which it is not prepared to release. Consider its problem. It wants an Act of Parliament which can be enforced on one sector of the community, but which will not allow that sector the normal protection one can obtain through a court injunction to restrain

Fallacies of the £6 limit

From Mr. G. Choudhary-Best.

Sir—Mr. Samuel Brittan (July 21) writes that "like Ramsay MacDonald in 1931, or Winston Churchill not in 1940 but in 1925, Mr. Harold Wilson is forcing needless follies upon us to preserve an arbitrary sterling exchange rate." I cannot answer for Ramsay MacDonald, but I feel bound to point out that, as R. S. Sayers wrote in *Studies in the Industrial Revolution* (1969), ed. L. G. Pressnell, one of the reasons for the return to gold in 1925 was the argument that export industries world-wide had declined. Unemployment remained at 1m, and was largely in export industries, while one of the factors making for the relative decline in exports was the dislocation of currency and exchange consequent upon the war. The return to gold was intended to ease this latter situation and to some extent did so. The 1931 crisis was the result of the American trade cycle, and not of U.K. monetary policy.

Mr. Brittan seems to think that we should leave everything to laissez-faire and all will come out right. Nevertheless, Government has responsibility to maintain the value of its currency and wage restraint will definitely help to achieve this end, provided it is balanced by reductions in the money supply. But wage restraint by itself will not work; it will merely produce unemployment by reducing the amount of purchasing power in circulation so that people will not be able to buy the goods that others are producing. That is the fallacy of the £6 limit.

And people like myself, who do most of their work for nothing and who are dependent on the security for their subsistence, will not be helped at all. No £6 increase for us; we are not even allowed to earn £5 a week in total to give us some sense of the dignity of our labour. G. Choudhary-Best, 174, Clay Hill Road, Basildon, Essex.

Employers in a cleft stick

From Mr. S. W. Penwill.

Sir—In Clause 10 of the White Paper, *The Attack on Inflation*, the Government expresses its intention to "legislate to relieve employers of contractual obligations" which may mean, if and when the necessary law is passed, that they will not be liable for damages for breach of contract as the breach is occasioned by their voluntarily following the requirements of the White Paper, which itself is not law. In the meantime as there is no Bill and there is no guarantee

that any Bill, when produced, will become law, would it not be dangerous for employers to break contracts without a guarantee from the Government that they will be compensated against action for breach of contract? Otherwise he would not be so categorical in dealing with the Soviet point of view on agricultural development there. The Soviet view stresses the need to intensify agricultural production by creating up-to-date material and technical facilities based on large-scale farming. Sergei Zimin, 2, Franzsen Street, Moscow.

Politics of envy

From Mr. E. C. Lister.

Sir—Is there no limit to the arrogance and presumption of the New Establishment? The TUC is reported (July 24) as having stated, in a written submission to a Commons Select Committee, that a "Wealth Tax" would be accepted by the community as a major contribution towards a fairer economic system." Voting figures at general elections show that the TUC cannot even speak for all trade unionists on general political questions, let alone for the whole community. There would be many members of the community who would recognise a Wealth Tax if one were introduced, as a further manifestation of the Politics of Envy and regard it as a gross injustice. E. C. Lister, Chinchurst Wood, Womersley, Guddford, Surrey.

Soviet aid

From Dr. S. Zimin.

Sir—I have read David Lascelles' article on Soviet aid to developing countries (June 25) and though I have no intention of comparing what I think are the quite distinct aims of Soviet economic help to developing countries and Western aid, I would like to point out that the author's obvious mistakes in assessing Soviet assistance.

The quantitative analysis which I think David Lascelles prefers to the qualitative one does not give a correct idea of Soviet assistance. How can one speculate about "insignificant" Soviet help when just one plant—that of heavy electrical equipment in Hardwar, India—built with Soviet help met the principal requirements of the long-term electrification plan for the whole of India? The iron and steel plants in Bokaro and Bhilai, built on contracts with the Soviet Union, account for more than half of all steel produced in India. The hydro-electric schemes in Arunachal Pradesh, and other Soviet-aided projects in developing countries play a key role in their economies and are internationally known. Furthermore, the economic benefit of such projects in developing countries is far greater than might be deduced from their design capacities. For example, during the construction of the first stage of the Bhilai plant, India delivered only 10 per cent of the necessary machinery and equipment, while at the time of building the Bokaro complex, her share, as a result of Soviet help, increased to 65 per cent. Soviet credits worth Rs. 124m. given to India to build the first stage of the Bhilai project and interest were repaid by her in full, by deliveries of tea, spices, tobacco and other commodities to demand of many of the interna-

Floating exchange rates

From Mr. T. E. Simms.

Sir—When Mr. Baker states that it is essential to stabilise the exchange rate at current levels (July 19), he implies that we have a say in what the value of the pound should be. At any given time, we have very little say in what the exchange rate should be. It is what the rest of the world thinks it should be, based quite simply on, first, our trading performance; second, our reserves; and the extent of our borrowing; and third, what the world thinks of our prospects.

There is a fourth factor, namely the extent to which foreigners might wish to support us on account of concern for the stability of world monetary systems, goodwill, or possibly pity, but I discount these as relatively insignificant. There is no way we can disguise either the first two of these (at least not honestly or in any way that can have any lasting effect) since they are simple statements of fact based on our past performance in relation to the rest of the world. Only in the third factor, our prospects, do we have any scope for influencing world opinion and even this is strictly limited to the bounds of credibility. This means getting down to the business of resolving our industrial and social ills and ensuring that we are seen by the rest of the world (particularly the most influential parts of it) to be doing this. However, Mr. Baker's point that falling exchange rates do not lead to a significant increase in exports in volume terms appears to have some truth, suggesting that the elasticity of demand of many of the interna-

tionally traded goods might be less than is generally thought, but there is also a "stickiness" factor, due to buyers' being loath to switch sources in response to small and possibly temporary changes in parity between currencies. Many of the goods form parts of intricate industrial structures (of both the hardware and software varieties) and it is not always easy to change to another supplier on account of different standards, long delivery periods etc.

Germany's experience, with its exports not decreasing, even in volume terms, after the mark was revalued, illustrates this point, and confirms that it is not the selling price alone which determines the relative saleability of goods. We have of course always known this, but perhaps we have not realised the importance of the other factors, which include designing for the market, reliable delivery promises, quality, after-sales service/support, and perhaps above all, our attitude to marketing.

As Mr. Baker rightly says, our objective should be a rising exchange rate, but there is only one route to this: a better trading performance, with all that that implies. There is no way that we can escape the consequences of our past (and present) over-indulgence. Until we demonstrate that we have both the ability and the will to manage our affairs sensibly, a falling exchange rate will continue as the inexorable and merciless corrective to put us right with the rest of the world. T. E. Simms, 45, Henton Grove, Bradford 9, Yorks.

Stopping the cycle

From Mr. W. Clarke.

Sir—Having read the article (July 22) about the machine tool industry in which reference is made to a disastrous recession and the alarmingly fast disappearance of the workforce, I am unable to reconcile the picture of gloom with the fact that customers wishing to buy British made engineering machine tools frequently have tremendous difficulties in obtaining them and consequently have to buy second hand or foreign manufactured goods.

According to the local representative of a nationally known supplier the waiting list for a quite basic British lathe is 14 months and one can wait up to three or four years for a more complex item. In consequence the supplier in question has a showroom full of foreign made machine tools and offers an enormous range of very good quality equipment imported mainly from eastern Europe either ex-stock or within weeks. Each sale of a foreign machine is a loss to the British industry. The present boom in sales of second-hand British machine tools is not unconnected with the virtual unavailability of new items, despite a supposed "distasteful recession." I should like someone to supply a convincing explanation of these apparently irreconcilable aspects of the problem. The thought occurs that British industrial downturn may not be wholly due to a genuine and unavoidable reduction in demand but that the problems are possibly being made worse than necessary by management miscalculation and general inefficiency. W. P. Clarke, 45, Varnod Avenue, Sheffield.

To-day's Events

Sir Murray Fox, Lord Mayor of London, in Perth as part of visit to Australia and New Zealand. Lord Stokes opens International Fire Conference and Exhibition, Olympia. The Continuing Heritage, a conference organised by Royal Institute of British Architects and Civic Trust, opens at Queen Elizabeth Hall, London. PARLIAMENTARY BUSINESS House of Commons: Petroleum and Submarine Pipelines Bill, remaining stages. Lords: Medicines (Feeding Stuff Additives) Order 1975. Diseases of Animals (Amendment) (Northern Ireland) Order 1975. Industry Bill, committee. Limitation Bill, consideration of Commons amendments. COMPANY RESULTS Faltrey (full year). Hall-Thornelank (half-year). Leslie and Godwin (half-year). COMPANY MEETINGS See Week's Financial Diary on page 7.

CITICORP

& Subsidiaries

LIMITED STATEMENT OF CONDITION

		(In thousands) June 30, 1975
ASSETS		\$13,037,797
Cash and Due from Banks		
Investment Securities		
U.S. Treasury and Federal Agencies		1,758,100
State and Municipal		888,263
Other		1,588,147
Trading Account Securities		910,544
Loans (Net of Unearned Discount of \$586,306 in 1975 and \$385,486 in 1974)		36,553,701
Federal Funds Sold and Securities Purchased Under Agreements to Resell		146,300
Direct Lease Financing		364,891
Customers' Acceptance Liability		1,621,769
Premises and Equipment		457,577
Other Assets		3,167,601
Total		\$60,994,690
LIABILITIES		
Demand Deposits in Domestic Offices		\$9,746,426
Time Deposits in Domestic Offices		11,886,864
Deposits in Overseas Offices		25,910,701
Total Deposits		\$46,843,991
Federal Funds Purchased and Securities Sold Under Agreements to Repurchase		3,447,381
Commercial Paper Outstanding		1,192,813
Other Funds Borrowed		2,132,748
Acceptances Outstanding		1,709,193
Accrued Taxes and Other Expenses		1,121,083
Dividends Payable		27,232
Other Liabilities		1,062,254
Floating Rate Notes Due 1989		650,000
8 1/2% Notes Due 1979		100,000
6 1/2% Notes Due 1980		125,000
4% Convertible Capital Notes Due 1990		19,849
Reserve for Possible Losses on Loans (including a Valuation Portion of \$313,291 in 1975 and \$256,180 in 1974)		345,758
Preferred Stock (without par) 10,000,000 shares authorized but unissued in 1974 and 1975		5,000,000
Common Stock \$4.00 par Issued Shares: 126,754,861 in 1975; 126,125,038 in 1974		5,070,192
Authorized Shares: 200,000,000 both years		
Surplus		706,104
Undivided Profits		957,496
Unallocated Reserve for Contingencies		100,000
Total		\$2,217,398
Common Stock in Treasury, at Cost		53,231
Shares: 2,973,602 in 1975; 2,963,135 in 1974		
Total		\$60,994,690

Figures of Overseas Offices are as of June 20.

U.S. Treasury and Federal Agencies investment securities carried at \$1,604,543. State and Municipal investment securities carried at \$618,158 and other assets carried at \$2,172,355 on June 30, 1975 are pledged to secure public and trust deposits and for other purposes.



INTERNATIONAL COMPANY NEWS EURO MARKETS

EUROMARKETS

D-mark problems climax in ban

BY MARY CAMPBELL

ALL SECTORS of the Eurobond market were depressed last week while the problems of the D-mark sector reached a climax in a ban on bond issues and private placements for foreign borrowers and a postponement of the expected domestic issue for the Federal Railways.

The continuing strength of the dollar—much moved up sharply again last week—was of course the factor behind the fall in the non-dollar sectors. SDR issues and even Swiss franc issues moved lower. In the dollar sector interest rate considerations outweighed the strength of the currency.

New issues in the market are \$50m. for New Zealand, \$15m. for Royal Nat (a joint subsidiary of Royal Bank of Canada and Banque Canadienne Nationale), \$100m. for Shell, and \$100m. for ESCOM and Alusuisse. The two D-mark issues will be the last before the ban takes effect.

A Lux-Frs. \$50m. issue for the French Sociétés de Développement Régional, under management of Société Générale, is expected soon.

The \$50m. issue for New Zealand is in two tranches, one of \$20m. for seven years, coupon 9 1/2 per cent, and the other of \$30m. for five years coupon 8 per cent.

Lead manager is Kidder Peabody International. The Canadian dollar issue, which was announced at the beginning of last week, offers a coupon of 9 1/2 per cent on its five year maturity. Lead managers are Wood Gundy and Orion.

The Swiss franc issue for Shell, which is being managed by Credit Suisse, offers a 7 1/2 per cent coupon on a pricing of 99 1/2.

The medium term lending market continues to be active as ever. A \$100m. loan for ISCOR was completed last week under lead management of Westdeutsche Landesbank Girozentrale. Maturity is five years and spread 12 per cent.

Guarded optimism at Citroen

By Rupert Cornwell

PARIS, July 27.

FOR THE FIRST time since it was engulfed by the energy crisis, the Citroen car group is showing some guarded signs of optimism that a recovery might be on the way.

At a meeting of shareholders of the holding company, Citroen SA, its President, M. Francois Rutledge, said that 1975 would be less of a financial disaster than had been feared at the end of 1974—a year in which the manufacturing subsidiary Citroen had lost of Fr. 299.5m. (\$110m.).

The main reason for M. Rutledge's guarded optimism was the revival in demand for more powerful passenger cars, on which margins are higher. Citroen, of course, has begun to reap the benefits of the highly priced CX model, but M. Rutledge also reported an upturn in demand for the smaller GS model.

The reasons for his doubts, however, are amply borne out by the latest monthly bulletin from the French car manufacturers' federation, which reports an ephemeral acceleration of sales at the end of last month, thanks to fears of higher prices (subsequently justified) which would be introduced for 1976 models.

This flurry lifted June sales to 142,000 units, nearly 9 per cent up on 1974, but nonetheless 13 per cent lower than the same month of 1973. The first indications of early July suggest a fresh peak of 15 per cent, down on July 1974, and 30 per cent on two years ago.

Exports, the major support of the industry in the last difficult 18 months, have for their part peaked out at around 120,000 units monthly, and the federation specifically blames the strengthening of the franc as a major reason.

In terms of output, the decline in 1975 per cent, in the first six months to 13m. units. Registrations fell even more steeply, by 14.6 per cent, to 742,373 units in the same period.

CORAL INDEX: Close 283.258

I.G. INDEX: GOLD 165.168

AUSTRALIAN WEEKLY LIST

Australian \$	July 25	July 18	Australian \$	July 25	July 18
Advertiser Newspaper	1.24	1.17	Woolworths	10.22	10.24
Bank of New South Wales	10.64	10.64	Woolworths	10.22	10.24
Bank of Queensland	10.64	10.64	Woolworths	10.22	10.24
Bank of Western Australia	10.64	10.64	Woolworths	10.22	10.24
Bank of Victoria	10.64	10.64	Woolworths	10.22	10.24
Bank of New Zealand	10.64	10.64	Woolworths	10.22	10.24
Bank of Australia	10.64	10.64	Woolworths	10.22	10.24
Bank of Commerce	10.64	10.64	Woolworths	10.22	10.24
Bank of Finance	10.64	10.64	Woolworths	10.22	10.24
Bank of Industrial	10.64	10.64	Woolworths	10.22	10.24
Bank of Maritime	10.64	10.64	Woolworths	10.22	10.24
Bank of New Guinea	10.64	10.64	Woolworths	10.22	10.24
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FINANCIAL TIMES REPORT

Monday July 28 1975

**When E. F. Hutton International
talks about gold or silver,
traders in Europe listen.**

That's because we've carefully organized our operations to provide maximum assistance to traders and others using the precious metals futures markets. Not only in the execution of orders, but in trading information and strategies. A special direct voice line makes possible almost immediate contact between most of our European offices and New York, Chicago and London.

E. F. Hutton
INTERNATIONAL

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London • Lugano • Luxembourg • Munich • Paris • Zurich
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Gold is our business

We produce nearly one-twelfth of the Free World's annual output of gold...

Gold mining accounts for some 60 per cent of our investments...

Prospecting for new gold mines is a vital part of our life...

We make a major contribution to the wealth of the world.

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GOLD

The price of gold has fluctuated widely over the past year under the pressure of strong speculative demand. Its role within the monetary system remains controversial.

The battle rages on

ANYBODY WHO has read last week's evidence by Mr. William Simon, U.S. Treasury Secretary, to Congress can be forgiven for concluding that the U.S. and the EEC are 3,000 miles apart on international monetary issues. But concealed beneath the cracks on the surface where foreign currencies now float there are signs of an agreement among the leading advanced countries about the proper role of gold in the international monetary system.

The problem, for any new reader who does not use gold in his supermarket transactions and wonders what all the fuss is about, is superficially about the difference of opinion between the U.S., which believes gold should be demonetised internationally as well as in the supermarket, and France, which believes that

somewhere within every gold bar there is intrinsic value.

This is not to say that belief in gold is the monopoly of France: just that France has been the metal's most persistent international proponent outside the gold-producing countries, in a long drawn-out debate between "the gold lobby" and an international establishment view that gold really is a barbarous relic.

The phasing out process has certainly been slow. Indeed, even now the value of gold holdings in the reserves of all countries belonging to the International Monetary Fund is, at \$441bn., over four times the value of their holdings of the "man-made asset"—IMF Special Drawing Rights—which is supposed to be phasing gold out. And that is when gold is valued at the archaic "official" price of \$42.22 an ounce. With due allowance for the likely effects of massive unloading in the market price, it is possible to argue that somewhere between \$42.22 and the market price of circa \$165 lies a multiple which can be applied to the real value of official gold holdings.

I regard the "demonetisation" debate as superficial because the belief in gold is some sort of a store of value and as a medium of exchange of last resort, is too deeply embedded in human nature to be extirpated by bureaucratic decree. Equally, however, the desire to return to a gold standard, that never existed is too romantic to be

lost its role as numeraire in the IMF's articles of agreement, to be replaced by Special Drawing Rights, which are valued in terms of a mixed basket of leading currencies.

But what to do with the resultant crock of gold? There has been a French proposal for restoring IMF gold to member countries, in proportion to their quotas, at the official price. Recipient countries would pay in their own currencies, keeping the Fund's accounts intact and the premium for themselves. Another proposal, from the U.S., and other developing countries, has been that the Fund should sell its gold holdings either in the market or to central banks at market prices: part of the proceeds would be fed back to the Fund, but the premium would be used for development assistance in some way. A third (British) suggestion has been to leave the gold where it is in the Fund, but to revise the Fund's articles to give it general enabling powers to implement either of the first two suggestions at some time in the future.

Downgraded

In a nutshell, the course of negotiations suggests that gold is going to disappear from (or at least be vastly downgraded within) International Monetary Fund transactions. But it is not going to be removed from central bank vaults, even if its use as a transaction medium continues to have a rarity value.

The immediate problem facing the intermittent meetings of the IMF interim committee on this front have been two-fold. What to do about the IMF's own stock of gold—some 150m. ounces, valued at \$64bn. at the official price but perhaps \$25bn. at market rates; and what to do about transactions in gold by monetary authorities, both between themselves and with the market.

Taking the IMF aspect first, there is already widespread agreement that the official gold sixth, and delay things under the "enabling" clause in the case of two-thirds of the Fund's

gold holdings. There may be some technical adjustments to the figures, but this is what was quietly agreed in Paris last month and might, according to some participants, have been formally announced but for the fundamental differences on the question of floating versus fixed exchange rates.

There is less unanimity at this stage on the way monetary authorities should behave over gold. But even here, there appears to be agreement that countries should legally be allowed to buy and sell gold in the market place, and deal between themselves, at any market-related price they can agree on. The French aside, there is first agreement between the U.S., the EEC and other countries that there should be some informal restraints on this freedom. The intention is to avoid offending U.S. susceptibilities by setting a new official price for gold. The fact that gold has recently been removed from intra-EEC settlements is indicative of the way things are moving.

It has been established for some time now that the leading countries do not intend to make any net additions to the world monetary stock by weight. A more contentious issue is when monetary authorities can sell or buy gold from one another to meet a balance of payments need. The U.S. wants to apply firm limits—again, to prevent another official price, emerging from a series of automatic transactions. But officials closely involved in recent negotiations do not regard this as insoluble: the hope is that the U.S. will modify its position provided that the question of a new official price emerging is kept under review.

Apart from the well publicised gold-backed loan to Italy last year, there has been little dealing in gold between monetary authorities in the past 12 months or so. According to one leading monetary official: "Gold may at some stage be abstracted from official reserve holdings altogether. But it will always be at the bottom of the pile, even if it is never used much as a means of payment."

Adrian Dicks

William Keegan

Caution in the U.S.

NEARLY ten months have passed since the U.S. Treasury Department lifted its 41-year-old ban on the ownership of gold by private American citizens. In that time, the market has managed to confound the expectations both of those who predicted that Americans would rush to put their money into the yellow metal as a sure defence against inflation and also of those who—like the Treasury itself—hoped it would flop altogether.

So far, both seem to have been proved wrong. The price of an ounce of gold, currently hovering around the \$165 mark, is substantially below the dizzy heights reached last December when many gold bugs persuaded themselves in advance that American demand would be strong, driving the price up to \$198. Yet demand has picked up a good deal from the cautious levels seen just after "G-day". In January, the U.S. Government managed to sell no more than 750,000 oz of the 2m. it put up for auction. At the beginning of this month, however, it sold virtually all of the 500,000 oz offered and could probably have disposed of a good deal more.

The need for a second sale—and the Treasury has stated that at least one and possibly two more will follow this year—became clear a couple of months ago when gold imports were clearly running ahead of expectations and risked becoming a troublesome deficit item in the U.S. balance of payments. The gold trade itself appears to be confident that demand will remain firm in the U.S.: after the June 30 auction, the large British and Swiss purchasers who walked away with the lion's share assured the American authorities that they expected to sell most of the gold back to U.S. customers.

Exactly who has been buying gold in the American market is difficult to ascertain. The Treasury, sometimes over-eager to press its view that the yellow metal is to be treated like any other commodity, concedes that interest at the June sale was "substantial," but likes to argue that the main demand comes from industrial users. There has been a steady and apparently still growing demand for gold coins, wafers and other small quantities, some of it doubtless for the souvenir market. This seems to have been confined for the most part to the specialist dealers, with most major banks still playing down the extent of their "retail" gold business, and some attempting to discourage it altogether.

The main interest centres on the five commodity exchanges 1974. There is another reason, which has established futures

contracts in gold—the International Monetary Market of the Chicago Mercantile Exchange, the Commodity Exchange of New York, Chicago Board of Trade, the New York Mercantile Exchange and the Mid-American Commodity Exchange in Chicago. (Americans are also how legally allowed to trade on the Winnipeg Commodity Exchange, where a gold contract has been in existence since 1972.)

Among these, the IMM has clearly established itself as the leader, with roughly half of the total business done so far in gold futures having taken place under its roof. The New York Commodity Exchange, Comer, with an existing business in copper and silver, took about one-third of the total gold trade in the first six months, with the remaining three exchanges sharing the crumbs between them.

With combined dealings of between 2,000 and 4,000 contracts a day on average, worth anywhere up to \$8m. at current prices, the gold futures market is clearly not to be taken lightly. It is still relatively narrow compared with the huge volume of dealings in major U.S. agricultural commodities, which continue to be the glamour items for most dealers and professional speculators. Yet gold futures dealings have grown rapidly by the standards of the commodities business, and few doubt they are here to stay. Whether there will be room indefinitely for five separate contracts remains to be seen. Despite the large investment which the laggards are reported to have put into promoting their services, they are likely to find it hard to catch up the lead set by IMM and Comer. As an added feature which it hopes will secure its supremacy among U.S. gold markets, IMM is also perfecting plans for a spot gold fixing on the lines of that in London—complete with little flags for the dealers.

It is a moot point whether dealings in gold futures can grow much larger, however. The actual value of a contract, some \$16,500 at present prices, is extremely high for most investors, especially given the net worth requirements made by most brokers before they will accept a client's business. Their prudence is not confined to gold alone. In spite of continued heavy advertising for new investors in futures markets, brokers have been obliged to screen out less affluent customers ever since many of these burnt their fingers in the volatile grain markets of 1973, and the five commodity exchanges 1974. There is another reason, too, why gold is unlikely ever to

attain the huge volumes of the main farm product futures markets—the fact that there is no ready-made large body of hedgers.

Only the Treasury itself might seem in one sense cast in that role—yet its interest is in fact the opposite one of keeping the price down by releasing stocks to meet domestic needs. U.S. official policy has consistently been to reduce the

monetary role of the metal, and if possible to dampen its price in the process. This year's sales appear to have had less impact on gold prices than the Administration may have expected, and in case it still entertains hopes of driving them lower, South Africa has bluntly warned that it would counter such a move by withholding production for a few weeks.

*Bell, book and candle
shall not drive me back,
When gold and silver
beck me to come on.*

Wm. Shakespeare, King John.

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مكز ان الذ حل

GOLD II

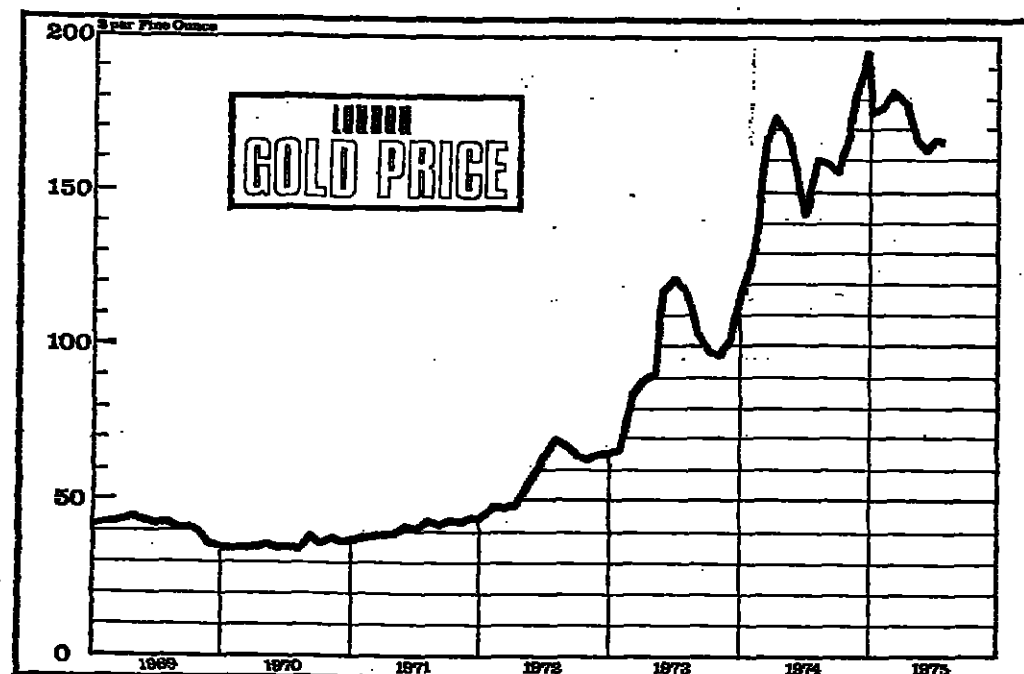
A volatile market

THE RECENT cut in the official French gold price from the \$170 an ounce at which the country initially valued its reserve holdings early this year is a reflection of the relatively quiet markets which have been seen so far this year after the excitement during 1974. The peak price of \$198 an ounce was reached almost at the end of the year, in late December, after a period of continuing speculative buying which had brought it up by over 70 per cent, from \$114.75 at the beginning of the year. Since then, however, there have been signs of greater stability partly as a result of the U.S. policy of selling gold from its reserves and partly, presumably, because of the relative improvement in the general economic climate in a number of major countries.

The highest levels this year were reached in February, when at one stage the price closed at \$185.5. Since then, the price has slipped back, running in the upper \$170s during March and early April but coming back further and only briefly rising above the \$170 mark during May. Nevertheless, the market remains in a sensitive condition, liable to substantial price movements. Most observers of the gold scene have been cautious about predicting the course of the price during this year, though there remain plenty of advocates willing to anticipate much higher prices and even the relatively careful Mocotta and Goldsmid earlier this year forecast that the top of the price range could be as high as \$225 an ounce.

There are perhaps three main elements in the background to the recent development of the market. First, there is the continuing argument over the role of gold in the monetary system and the events which have led to its revaluation as an official monetary asset. The debate has continued inconclusively through the past year, and there is still little sign of a reconciliation particularly between the U.S. and France. Last month, yet again, the Interim Committee of the International Monetary Fund failed to find agreement on this issue, and meanwhile there is considerable difference of view on the implications of recent events in this field for the gold price itself.

Important events have included last year's agreement



in the EEC that Community central banks would be allowed to trade gold among themselves at prices close to the free market level, and the June agreement in the Group of Ten that in principle gold could be used as collateral in international loans. This move was important for the market, since it removed the threat that a leading central bank, such as Italy's, could dump its holdings on the market and cleared the way for the West German agreement to lend to Italy on the basis of gold holdings at a price substantially higher than the official level.

Support

There are some observers who argue that these moves, and the French revaluation, provide important support for the market, at least in the psychological sense of indicating a growing official recognition of the real value of the metal and perhaps effectively putting a floor under the free market price. Others maintain, though, that the operation has basically cosmetic purposes, with little real significance for the market; and recent trends have perhaps given some support to this view.

The second major influence in the market has been the events in the U.S. itself. These in fact were relatively slow to make an impact on the price, which failed initially to respond to the prospect of a substantial

take-off of the metal by the U.S. In May last year the U.S. Secretary of the Treasury declared that he favoured ownership of gold by U.S. citizens; a Bill allowing U.S. citizens' ownership of gold from December 31 (after a 41-year ban) was approved by the House Banking Committee in June and signed into law by President Ford in mid-August.

It appeared, however, that this development had already been discounted by the market, and a gentle decline in the price continued until mid-September. It was only later in the year that the idea took hold of the market that the entry of the U.S. into the market could mean a substantial rise in demand. This produced a considerable rise, only temporarily reversed after the early December news of the plans to auction 2m. ozs of U.S. gold, which continued to the end of the year.

The actual entry of the U.S. into the market, however, proved something of a damp squib. The gold rush failed to materialise, and the auction in January brought bids for less than half the metal on offer, dominated moreover by European rather than U.S. buyers. The more recent auction, however, was a different story. The amount on offer, 500,000 ozs, was a good deal smaller, and was designed, the authorities said, to help keep down bullion imports as there were signs of a developing interest in the metal within the U.S.

The offer met good demand, again dominated by European buyers, and bids were remarkably close to the current market price. The sale, in fact of slightly less than the 500,000 ozs was felt by the U.S. authorities to have the desired effect even though much of the metal went to foreign dealers. It was thought likely that the metal would be sold back to U.S. buyers. These events have underlined the continuing official U.S. dislike of gold's monetary function and the efforts to reduce its position to that of simply another commodity.

The third main development in the market, though, may highlight the problems of removing from gold the special characteristics which make the market different from other commodities. This is the extent to which over the past year and more it has been completely dominated by speculative and investment demand for the metal, buying not for industrial use or even for traditional hoarding as a store of value, but for the hope of a profit in the short or longer term.

The increased prices have brought a sharp drop in the industrial consumption of the metal; while an important feature of last year was the disappearance from the market of the traditional demand for hoarding purposes from the Indian sub-continent and South-East Asia.

Demand therefore has been

for investment purposes against the background of depressed stock markets, the high level of inflation in many countries and uncertainties over the economic future and exchange rates. The volatility of this type of buying makes it unusually difficult to draw equations with the supply side of the market. In general, the supply of new metal is more likely to fall than to rise.

It has been apparent for some time that the supply of new gold from Western sources is on a declining trend. This has been accelerated by the rise in the price, which has led to the working of lower grade ores by the South African mines, and last year there was a significant drop in the amount of new metal brought to the market.

Speculative

In this situation, it is no longer straightforward to attempt to compare the long-term downward trend of the supply of newly mined gold with the growing underlying rise in the demand. The movement of the price depends on the level of speculative interest in the metal, which is in turn related to events in the international monetary and banking field and to the general level of confidence. At present, the signs are being brought down and the recent improvement in the dollar have created a situation in which the attractions of gold have been reduced, while a better performance on stock markets has provided an alternative to speculation in precious metals.

The situation could be changed, however, if confidence suffered a setback or if, for example, there were signs of some of the oil surplus funds moving into gold. The latter contingency has seemed doubtful since the producers are already sitting on an asset which may have greater attractions in present circumstances than the alternative. But even a small change in the mood of the market would be capable of producing sharp movements in the gold price.

Michael Blanden

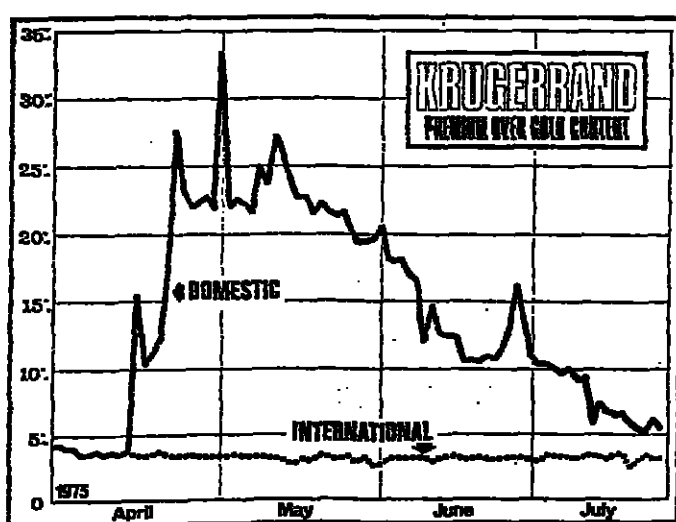
Lower demand for coins

THE DRAMATIC upsurge in the demand for gold coins during the latter stages of last year went into gear at the same time as the faith in U.K. equities was declining and commodity prices were in full retreat; and as even fixed interest levels were showing no signs of pepping within shooting distance of the rate of inflation. This situation produced something akin to a state of panic among many normally stolid investors and one witnessed the sad scene of people who had already lost 40 per cent of their capital in the stock market in 1974 getting out and going into gold coins at the peak of the boom last December.

What I am talking about is, of course, the great krugerrand phenomenon when suddenly these coins (consisting of 1 oz of fine gold) stopped being something for professionals to nudge each other about and became the potential saviour of the investor along with the tons of baked beans which the panic-stricken were loading into their garages. At this time all sorts of super-salesmen of gold coins appeared, operating from West End addresses, pumping out arguments about how gold was going to go from strength to strength as the last bastion of monetary honesty and that how anyone who did not get his plastic satchel of krugerrands was a muck.

I was unhappy about this sort of sensationalism at the time, my instincts being that whatever is sold as the ultimate answer to all one's problems is usually a bad buy. And the sudden transformation of gold coins from a conservative hedge to a growth medium was a considerable test of credibility. Sure enough the break came on January 1 when the U.S. Treasury's gold auction—which was supposed to be a sell-out—proved to be a complete wash-out, for (admittedly with a lot of anti-gold prompting by the U.S. Government) only 750,000 ozs of gold was sold compared with the 2m. ozs on offer.

On December 30 the gold price had risen to a peak of \$197.50 per ounce and the price of the krugerrand had



risen to £100 per coin and 50 per cent of South Africa's gold production was going into the coins. With the recovery in world equity markets the emphasis started to shift from bullion coins, and by April 15 this year the premium on krugerrands had fallen from 20 per cent to 3½ per cent, the price per coin being then £73½ on the sellers' side.

Restrict

The event which provided the next boost to the bullion coin market on April 15 was paradoxically the move by the Chancellor to restrict the import of gold coins. This seemed at the time to be acting too late, and one could sense that dealers were rather glad that the further supply of coins had been cut off — because the days of really buoyant demand were over. The Chancellor, however, was beating the anti-coins from a conservative hedge to a growth medium was a considerable test of credibility. Sure enough the break came on January 1 when the U.S. Treasury's gold auction—which was supposed to be a sell-out—proved to be a complete wash-out, for (admittedly with a lot of anti-gold prompting by the U.S. Government) only 750,000 ozs of gold was sold compared with the 2m. ozs on offer.

On December 30 the gold price had risen to a peak of \$197.50 per ounce and the price of the krugerrand had

U.K. residents seemed to be sitting back and waiting to see whether the deflationary measures are going to work and that gold had gone back to being looked upon as just another commodity. He certainly thought that the days of wild speculation in gold coins were over, and his own efforts in that direction were now confined to switching clients between krugerrands and old and new sovereigns in order to make a little money on the margin between premium levels. This is not very exciting stuff compared with the heady days of 1974, but then the price of krugerrands is back to what it was in March last year.

As an investment, gold coins have disadvantages for many individuals for they produce no income and up to about four years ago were far outpaced in performance terms by other investments. This is not to say that krugerrands will not make a comeback if world economic conditions deteriorate once more, but they no longer seem the instant road to riches as the closest a U.K. resident can get to bullion.

Medallions

I have concentrated mainly on krugerrands and sovereigns in this article but of course during the gold fever there were many other bullion items on sale including medallions, gold rulers and special issues from offshore islands. The traditional coin dealers were also rather deprecating of krugerrands even at the height of the boom, pointing out that these coins had no numismatic value whatsoever and that there was more money to be made in antique gold coins of numismatic interest. The problem here, however, is that the average person has no yardstick by which to measure the value of antique coins, and the real attraction of krugerrands was that they were an investment in gold as a metal with a network of dealers to enable people to buy and sell easily. Even so this did not mean that the small investor got as good a deal as an institution might secure.

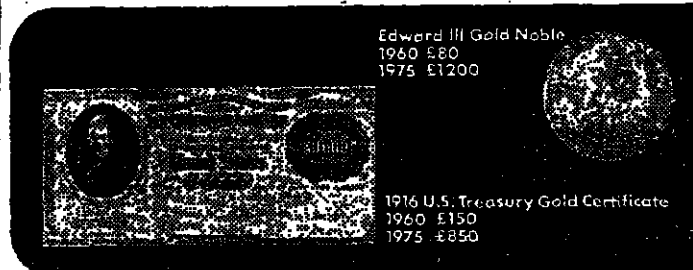
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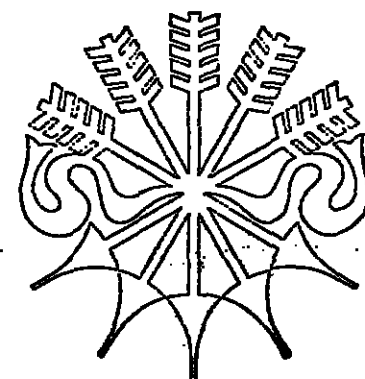
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HOTELS—Continued

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122	Feb.	Dec.	Edw. H. Redrup	21	17	45	75
123	Mar.	Apr.	David Scott	22	18	46	76
124	Feb.	Sept.	Diamond S. H. B.	23	19	47	77
125	Mar.	Apr.	David Scott	24	20	48	78
126	Apr.	Sept.	Diamond S. H. B.	25	21	49	79
127	Apr.	Sept.	Diamond S. H. B.	26	22	50	80
128	Apr.	Sept.	Diamond S. H. B.	27	23	51	81
129	Apr.	Sept.	Diamond S. H. B.	28	24	52	82
130	Apr.	Sept.	Diamond S. H. B.	29	25	53	83
131	Apr.	Sept.	Diamond S. H. B.	30	26	54	84
132	Apr.	Sept.	Diamond S. H. B.	31	27	55	85
133	Apr.	Sept.	Diamond S. H. B.	32	28	56	86
134	Apr.	Sept.	Diamond S. H. B.	33	29	57	87
135	Apr.	Sept.	Diamond S. H. B.	34	30	58	88
136	Apr.	Sept.	Diamond S. H. B.	35	31	59	89
137	Apr.	Sept.	Diamond S. H. B.	36	32	60	90
138	Apr.	Sept.	Diamond S. H. B.	37	33	61	91
139	Apr.	Sept.	Diamond S. H. B.	38	34	62	92
140	Apr.	Sept.	Diamond S. H. B.	39	35	63	93
141	Apr.	Sept.	Diamond S. H. B.	40	36	64	94
142	Apr.	Sept.	Diamond S. H. B.	41	37	65	95
143	Apr.	Sept.	Diamond S. H. B.	42	38	66	96
144	Apr.	Sept.	Diamond S. H. B.	43	39	67	97
145	Apr.	Sept.	Diamond S. H. B.	44	40	68	98
146	Apr.	Sept.	Diamond S. H. B.	45	41	69	99
147	Apr.	Sept.	Diamond S. H. B.	46	42	70	100
148	Apr.	Sept.	Diamond S. H. B.	47	43	71	101
149	Apr.	Sept.	Diamond S. H. B.	48	44	72	102
150	Apr.	Sept.	Diamond S. H. B.	49	45	73	103
151	Apr.	Sept.	Diamond S. H. B.	50	46	74	104
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155	Apr.	Sept.	Diamond S. H. B.	54	50	78	108
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165	Apr.	Sept.	Diamond S. H. B.	64	60	88	118
166	Apr.	Sept.	Diamond S. H. B.	65	61	89	119
167	Apr.	Sept.	Diamond S. H. B.	66	62	90	120
168	Apr.	Sept.	Diamond S. H. B.	67	63	91	121
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191	Apr.	Sept.	Diamond S. H. B.	90	86	114	144
192	Apr.	Sept.	Diamond S. H. B.	91	87	115	145
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206	Apr.	Sept.	Diamond S. H. B.	105	101	129	159
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226	Apr.	Sept.	Diamond S. H. B.	125	121	149	179
227	Apr.	Sept.	Diamond S. H. B.	126	122	150	180
228	Apr.	Sept.	Diamond S. H. B.	127	123	151	181
229	Apr.	Sept.	Diamond S. H. B.	128	124	152	182
230	Apr.	Sept.	Diamond S. H. B.	129	125	153	183
231	Apr.	Sept.	Diamond S. H. B.	130	126	154	184
232	Apr.	Sept.	Diamond S. H. B.	131	127	155	185
233	Apr.	Sept.	Diamond S. H. B.	132	128	156	186
234	Apr.	Sept.	Diamond S. H. B.	133	129	157	187
235	Apr.	Sept.	Diamond S. H. B.	134	130	158	188
236	Apr.	Sept.	Diamond S. H. B.	135	131	159	189
237	Apr.	Sept.	Diamond S. H. B.	136	132	160	190
238	Apr.	Sept.	Diamond S. H. B.	137	133	161	191
239	Apr.	Sept.	Diamond S. H. B.	138	134	162	192
240	Apr.	Sept.	Diamond S. H. B.	139	135	163	193
241	Apr.	Sept.	Diamond S. H. B.	140	136	164	194
242	Apr.	Sept.	Diamond S. H. B.	141	137	165	195
243	Apr.	Sept.	Diamond S. H. B.	142	138	166	196
244	Apr.	Sept.	Diamond S. H. B.	143	139	167	197
245	Apr.	Sept.	Diamond S. H. B.	144	140	168	198
246	Apr.	Sept.	Diamond S. H. B.	145	141	169	199
247	Apr.	Sept.	Diamond S. H. B.	146	142	170	200
248	Apr.	Sept.	Diamond S. H. B.	147	143	171	201
249	Apr.	Sept.	Diamond S. H. B.	148	144	172	202
250	Apr.	Sept.	Diamond S. H. B.	149	145	173	203
251	Apr.	Sept.	Diamond S. H. B.	150	146	174	204
252	Apr.	Sept.	Diamond S. H. B.	151	147	175	205
253	Apr.	Sept.	Diamond S. H. B.	152	148	176	206
254	Apr.	Sept.	Diamond S. H. B.	153	149	177	207
255	Apr.	Sept.	Diamond S. H. B.	154	150	178	208
256	Apr.	Sept.	Diamond S. H. B.	155	151	179	209
257	Apr.	Sept.	Diamond S. H. B.	156	152	180	210
258	Apr.	Sept.	Diamond S. H. B.	157	153	181	211
259	Apr.	Sept.	Diamond S. H. B.	158	154	182	212
260	Apr.	Sept.	Diamond S. H. B.	159	155	183	213
261	Apr.	Sept.	Diamond S. H. B.	160	156	184	214
262	Apr.	Sept.	Diamond S. H. B.	161	157	185	215
263	Apr.	Sept.	Diamond S. H. B.	162	158	186	216
264	Apr.	Sept.	Diamond S. H. B.	163	159	187	217
265	Apr.	Sept.	Diamond S. H. B.	164	160	188	218
266	Apr.	Sept.	Diamond S. H. B.	165	161	189	219
267	Apr.	Sept.	Diamond S. H. B.	166	162	190	220
268	Apr.	Sept.	Diamond S. H. B.	167	163	191	221
269	Apr.	Sept.	Diamond S. H. B.	168	164	192	222
270	Apr.	Sept.	Diamond S. H. B.	169	165	193	223
271	Apr.	Sept.	Diamond S. H. B.	170	166	194	224
272	Apr.	Sept.	Diamond S. H. B.	171	167	195	225
273	Apr.	Sept.	Diamond S. H. B.	172	168	196	226
274	Apr.	Sept.	Diamond S. H. B.	173	169	197	227
275	Apr.	Sept.	Diamond S. H. B.	174	170	198	228
276	Apr.	Sept.	Diamond S. H. B.	175	171	199	229
277	Apr.	Sept.	Diamond S. H. B.	176	172	200	230
278	Apr.	Sept.	Diamond S. H. B.	177	173	201	231
279	Apr.	Sept.	Diamond S. H. B.	178	174	202	232
280	Apr.	Sept.	Diamond S. H. B.	179	175	203	233
281	Apr.	Sept.	Diamond S. H. B.	180	176	204	234
282	Apr.	Sept.	Diamond S. H. B.	181	177	205	235
283	Apr.	Sept.	Diamond S. H. B.	182	178	206	236
284	Apr.	Sept.	Diamond S. H. B.	183	179	207	237
285	Apr.	Sept.	Diamond S. H. B.	184	180	208	238
286	Apr.	Sept.	Diamond S. H. B.	185	181	209	239
287	Apr.	Sept.	Diamond S. H. B.	186	182	210	240
288	Apr.	Sept.	Diamond S. H. B.	187	183	211	241
289	Apr.	Sept.	Diamond S. H. B.	188	184	212	242
290	Apr.	Sept.	Diamond S. H. B.	189	185	213	243
291	Apr.	Sept.	Diamond S. H. B.	190	186	214	244
292	Apr.	Sept.	Diamond S. H. B.	191	187	215	245
293	Apr.	Sept.	Diamond S. H. B.	192	188	216	246
294	Apr.	Sept.	Diamond S. H. B.	193	189	217	247
295	Apr.	Sept.	Diamond S. H. B.	194	190	218	248
296	Apr.	Sept.	Diamond S. H. B.	195	191	219	249
297	Apr.	Sept.	Diamond S. H. B.	196	192	220	250
298	Apr.	Sept.	Diamond S. H. B.	197	193	221	251
299	Apr.	Sept.	Diamond S. H. B.	198	194	222	252
300	Apr.	Sept.	Diamond S. H. B.	199	195	223	253
301	Apr.	Sept.	Diamond S. H. B.	200	196	224	254
302	Apr.	Sept.	Diamond S. H. B.	201	197	225	255
303	Apr.	Sept.	Diamond S. H. B.	202	198	226	256
304	Apr.	Sept.	Diamond S. H. B.	203	199	227	257
305	Apr.	Sept.	Diamond S. H. B.	204	200	228	258
306	Apr.	Sept.	Diamond S. H. B.	205	201	229	259
307	Apr.	Sept.	Diamond S. H. B.	206	202	230	260
308	Apr.	Sept.	Diamond S. H. B.	207	203	231	261
309	Apr.	Sept.	Diamond S. H. B.	208	204	232	262
310	Apr.	Sept.	Diamond S. H. B.				

57	72	Jan.	July	Gregory et al.	26	26	212	22	124	34
58	73	Feb.	Aug.	Gregory et al.	26	26	212	22	124	34
59	74	Mar.	Sept.	Gregory et al.	26	26	212	22	124	34
60	75	Apr.	Oct.	Norris & Sheff A.	26	26	212	22	124	34
61	76	May	Nov.	Gregory et al.	26	26	212	22	124	34
62	77	June	Dec.	Gregory et al.	26	26	212	22	124	34
63	78	Jan.	Jan.	Gregory et al.	26	26	212	22	124	34
64	79	Feb.	Feb.	Gregory et al.	26	26	212	22	124	34
65	80	Mar.	Mar.	Gregory et al.	26	26	212	22	124	34
66	81	Apr.	Apr.	Gregory et al.	26	26	212	22	124	34
67	82	May	May	Gregory et al.	26	26	212	22	124	34
68	83	June	June	Gregory et al.	26	26	212	22	124	34
69	84	July	July	Gregory et al.	26	26	212	22	124	34
70	85	Aug.	Aug.	Gregory et al.	26	26	212	22	124	34
71	86	Sept.	Sept.	Gregory et al.	26	26	212	22	124	34
72	87	Oct.	Oct.	Gregory et al.	26	26	212	22	124	34
73	88	Nov.	Nov.	Gregory et al.	26	26	212	22	124	34
74	89	Dec.	Dec.	Gregory et al.	26	26	212	22	124	34
75	90	Jan.	Jan.	Gregory et al.	26	26	212	22	124	34
76	91	Feb.	Feb.	Gregory et al.	26	26	212	22	124	34
77	92	Mar.	Mar.	Gregory et al.	26	26	212	22	124	34
78	93	Apr.	Apr.	Gregory et al.	26	26	212	22	124	34
79	94	May	May	Gregory et al.	26	26	212	22	124	34
80	95	June	June	Gregory et al.	26	26	212	22	124	34
81	96	July	July	Gregory et al.	26	26	212	22	124	34
82	97	Aug.	Aug.	Gregory et al.	26	26	212	22	124	34
83	98	Sept.	Sept.	Gregory et al.	26	26	212	22	124	34
84	99	Oct.	Oct.	Gregory et al.	26	26	212	22	124	34
85	00	Nov.	Nov.	Gregory et al.	26	26	212	22	124	34
86	01	Dec.	Dec.	Gregory et al.	26	26	212	22	124	34
87	02	Jan.	Jan.	Gregory et al.	26	26	212	22	124	34
88	03	Feb.	Feb.	Gregory et al.	26	26	212	22	124	34
89	04	Mar.	Mar.	Gregory et al.	26	26	212	22	124	34
90	05	Apr.	Apr.	Gregory et al.	26	26	212	22	124	34
91	06	May	May	Gregory et al.	26	26	212	22	124	34
92	07	June	June	Gregory et al.	26	26	212	22	124	34
93	08	July	July	Gregory et al.	26	26	212	22	124	34
94	09	Aug.	Aug.	Gregory et al.	26	26	212	22	124	34
95	10	Sept.	Sept.	Gregory et al.	26	26	212	22	124	34
96	11	Oct.	Oct.	Gregory et al.	26	26	212	22	124	34
97	12	Nov.	Nov.	Gregory et al.	26	26	212	22	124	34
98	13	Dec.	Dec.	Gregory et al.	26	26	212	22	124	34
99	14	Jan.	Jan.	Gregory et al.	26	26	212	22	124	34
00	15	Feb.	Feb.	Gregory et al.	26	26	212	22	124	34
01	16	Mar.	Mar.	Gregory et al.	26	26	212	22	124	34
02	17	Apr.	Apr.	Gregory et al.	26	26	212	22	124	34
03	18	May	May	Gregory et al.	26	26	212	22	124	34
04	19	June	June	Gregory et al.	26	26	212	22	124	34
05										

هكذا في الأصل

مركز الاندلس

INDUSTRIALS-Continued											
Stock	Price	Dividend	Yield	Stock	Price	Dividend	Yield	Stock	Price		
Dec. 1975	10.00	0.50	5.0%	Jan. 1976	12.00	0.60	5.0%	Feb. 1976	15.00	0.75	5.0%
Mar. 1976	18.00	0.90	5.0%	Apr. 1976	20.00	1.00	5.0%	May 1976	22.00	1.10	5.0%
Jun. 1976	25.00	1.25	5.0%	Jul. 1976	28.00	1.40	5.0%	Aug. 1976	30.00	1.50	5.0%
Sep. 1976	32.00	1.60	5.0%	Oct. 1976	35.00	1.75	5.0%	Nov. 1976	38.00	1.90	5.0%
Dec. 1976	40.00	2.00	5.0%	Jan. 1977	42.00	2.10	5.0%	Feb. 1977	45.00	2.25	5.0%
Mar. 1977	48.00	2.40	5.0%	Apr. 1977	50.00	2.50	5.0%	May 1977	52.00	2.60	5.0%
Jun. 1977	55.00	2.75	5.0%	Jul. 1977	58.00	2.90	5.0%	Aug. 1977	60.00	3.00	5.0%
Sep. 1977	62.00	3.10	5.0%	Oct. 1977	65.00	3.25	5.0%	Nov. 1977	68.00	3.40	5.0%
Dec. 1977	70.00	3.50	5.0%	Jan. 1978	72.00	3.60	5.0%	Feb. 1978	75.00	3.75	5.0%
Mar. 1978	78.00	3.90	5.0%	Apr. 1978	80.00	4.00	5.0%	May 1978	82.00	4.10	5.0%
Jun. 1978	85.00	4.25	5.0%	Jul. 1978	88.00	4.40	5.0%	Aug. 1978	90.00	4.50	5.0%
Sep. 1978	92.00	4.60	5.0%	Oct. 1978	95.00	4.75	5.0%	Nov. 1978	98.00	4.90	5.0%
Dec. 1978	100.00	5.00	5.0%	Jan. 1979	102.00	5.10	5.0%	Feb. 1979	105.00	5.25	5.0%
Mar. 1979	108.00	5.40	5.0%	Apr. 1979	110.00	5.50	5.0%	May 1979	112.00	5.60	5.0%
Jun. 1979	115.00	5.75	5.0%	Jul. 1979	118.00	5.90	5.0%	Aug. 1979	120.00	6.00	5.0%
Sep. 1979	122.00	6.10	5.0%	Oct. 1979	125.00	6.25	5.0%	Nov. 1979	128.00	6.40	5.0%
Dec. 1979	130.00	6.50	5.0%	Jan. 1980	132.00	6.60	5.0%	Feb. 1980	135.00	6.75	5.0%
Mar. 1980	138.00	6.90	5.0%	Apr. 1980	140.00	7.00	5.0%	May 1980	142.00	7.10	5.0%
Jun. 1980	145.00	7.25	5.0%	Jul. 1980	148.00	7.40	5.0%	Aug. 1980	150.00	7.50	5.0%
Sep. 1980	152.00	7.60	5.0%	Oct. 1980	155.00	7.75	5.0%	Nov. 1980	158.00	7.90	5.0%
Dec. 1980	160.00	8.00	5.0%	Jan. 1981	162.00	8.10	5.0%	Feb. 1981	165.00	8.25	5.0%
Mar. 1981	168.00	8.40	5.0%	Apr. 1981	170.00	8.50	5.0%	May 1981	172.00	8.60	5.0%
Jun. 1981	175.00	8.75	5.0%	Jul. 1981	178.00	8.90	5.0%	Aug. 1981	180.00	9.00	5.0%
Sep. 1981	182.00	9.10	5.0%	Oct. 1981	185.00	9.25	5.0%	Nov. 1981	188.00	9.40	5.0%
Dec. 1981	190.00	9.50	5.0%	Jan. 1982	192.00	9.60	5.0%	Feb. 1982	195.00	9.75	5.0%
Mar. 1982	198.00	9.90	5.0%	Apr. 1982	200.00	10.00	5.0%	May 1982	202.00	10.10	5.0%
Jun. 1982	205.00	10.25	5.0%	Jul. 1982	208.00	10.40	5.0%	Aug. 1982	210.00	10.50	5.0%
Sep. 1982	212.00	10.60	5.0%	Oct. 1982	215.00	10.75	5.0%	Nov. 1982	218.00	10.90	5.0%
Dec. 1982	220.00	11.00	5.0%	Jan. 1983	222.00	11.10	5.0%	Feb. 1983	225.00	11.25	5.0%
Mar. 1983	228.00	11.40	5.0%	Apr. 1983	230.00	11.50	5.0%	May 1983	232.00	11.60	5.0%
Jun. 1983	235.00	11.75	5.0%	Jul. 1983	238.00	11.90	5.0%	Aug. 1983	240.00	12.00	5.0%
Sep. 1983	242.00	12.10	5.0%	Oct. 1983	245.00	12.25	5.0%	Nov. 1983	248.00	12.40	5.0%
Dec. 1983	250.00	12.50	5.0%	Jan. 1984	252.00	12.60	5.0%	Feb. 1984	255.00	12.75	5.0%
Mar. 1984	258.00	12.90	5.0%	Apr. 1984	260.00	13.00	5.0%	May 1984	262.00	13.10	5.0%
Jun. 1984	265.00	13.25	5.0%	Jul. 1984	268.00	13.40	5.0%	Aug. 1984	270.00	13.50	5.0%
Sep. 1984	272.00	13.60	5.0%	Oct. 1984	275.00	13.75	5.0%	Nov. 1984	278.00	13.90	5.0%
Dec. 1984	280.00	14.00	5.0%	Jan. 1985	282.00	14.10	5.0%	Feb. 1985	285.00	14.25	5.0%
Mar. 1985	288.00	14.40	5.0%	Apr. 1985	290.00	14.50	5.0%	May 1985	292.00	14.60	5.0%
Jun. 1985	295.00	14.75	5.0%	Jul. 1985	298.00	14.90	5.0%	Aug. 1985	300.00	15.00	5.0%
Sep. 1985	302.00	15.10	5.0%	Oct. 1985	305.00	15.25	5.0%	Nov. 1985	308.00	15.40	5.0%
Dec. 1985	310.00	15.50	5.0%	Jan. 1986	312.00	15.60	5.0%	Feb. 1986	315.00	15.75	5.0%
Mar. 1986	318.00	15.90	5.0%	Apr. 1986	320.00	16.00	5.0%	May 1986	322.00	16.10	5.0%
Jun. 1986	325.00	16.25	5.0%	Jul. 1986	328.00	16.40	5.0%	Aug. 1986	330.00	16.50	5.0%
Sep. 1986	332.00	16.60	5.0%	Oct. 1986	335.00	16.75	5.0%	Nov. 1986	338.00	16.90	5.0%
Dec. 1986	340.00	17.00	5.0%	Jan. 1987	342.00	17.10	5.0%	Feb. 1987	345.00	17.25	5.0%
Mar. 1987	348.00	17.40	5.0%	Apr. 1987	350.00	17.50	5.0%	May 1987	352.00	17.60	5.0%
Jun. 1987	355.00	17.75	5.0%	Jul. 1987	358.00	17.90	5.0%	Aug. 1987	360.00	18.00	5.0%
Sep. 1987	362.00	18.10	5.0%	Oct. 1987	365.00	18.25	5.0%	Nov. 1987	368.00	18.40	5.0%
Dec. 1987	370.00	18.50	5.0%	Jan. 1988	372.00	18.60	5.0%	Feb. 1988	375.00	18.75	5.0%
Mar. 1988	378.00	18.90	5.0%	Apr. 1988	380.00	19.00	5.0%	May 1988	382.00	19.10	5.0%
Jun. 1988	385.00	19.25	5.0%	Jul. 1988	388.00	19.40	5.0%	Aug. 1988	390.00	19.50	5.0%
Sep. 1988	392.00	19.60	5.0%	Oct. 1988	395.00	19.75	5.0%	Nov. 1988	398.00	19.90	5.0%
Dec. 1988	400.00	20.00	5.0%	Jan. 1989	402.00	20.10	5.0%	Feb. 1989	405.00	20.25	5.0%
Mar. 1989	408.00	20.40	5.0%	Apr. 1989	410.00	20.50	5.0%	May 1989	412.00	20.60	5.0%
Jun. 1989	415.00	20.75	5.0%	Jul. 1989	418.00	20.90	5.0%	Aug. 1989	420.00	21.00	5.0%
Sep. 1989	422.00	21.10	5.0%	Oct. 1989	425.00	21.25	5.0%	Nov. 1989	428.00	21.40	5.0%
Dec. 1989	430.00	21.50	5.0%	Jan. 1990	432.00	21.60	5.0%	Feb. 1990	435.00	21.75	5.0%
Mar. 1990	438.00	21.90	5.0%	Apr. 1990	440.00	22.00	5.0%	May 1990	442.00	22.10	5.0%
Jun. 1990	445.00	22.25	5.0%	Jul. 1990	448.00	22.40	5.0%	Aug. 1990	450.00	22.50	5.0%
Sep. 1990	452.00	22.60	5.0%	Oct. 1990	455.00	22.75	5.0%	Nov. 1990	458.00	22.90	5.0%
Dec. 1990	460.00	23.00	5.0%	Jan. 1991	462.00	23.10	5.0%	Feb. 1991	465.00	23.25	5.0%
Mar. 1991	468.00	23.40	5.0%	Apr. 1991	470.00	23.50	5.0%	May 1991	472.00	23.60	5.0%
Jun. 1991	475.00	23.75	5.0%	Jul. 1991	478.00	23.90	5.0%	Aug. 1991	480.00	24.00	5.0%
Sep. 1991	482.00	24.10	5.0%	Oct. 1991	485.00	24.25	5.0%	Nov. 1991	488.00	24.40	5.0%
Dec. 1991	490.00	24.50	5.0%	Jan. 1992	492.00	24.60	5.0%	Feb. 1992	495.00	24.75	5.0%
Mar. 1992	498.00	24.90	5.0%	Apr. 1992	500.00	25.00	5.0%	May 1992	502.00	25.10	5.0%
Jun. 1992	505.00	25.25	5.0%	Jul. 1992	508.00	25.40	5.0%	Aug. 1992	510.00	25.50	5.0%
Sep. 1992	512.00	25.60	5.0%	Oct. 1992	515.00	25.75	5.0%	Nov. 1992	518.00	25.90	5.0%
Dec. 1992	520.00	26.00	5.0%	Jan. 1993	522.00	26.10	5.0%	Feb. 1993	525.00	26.25	5.0%
Mar. 1993	528.00	26.40	5.0%	Apr. 1993	530.00	26.50	5.0%	May 1993	532.00	26.60	5.0%
Jun. 1993	535.00	26.75	5.0%	Jul. 1993	538.00	26.90	5.0%	Aug. 1993	540.00	27.00	5.0%
Sep. 1993	542.00	27.10	5.0%	Oct. 1993	545.00	27.25	5.0%	Nov. 1993	548.00	27.40	5.0%
Dec. 1993	550.00	27.50	5.0%	Jan. 1994	552.00	27.60	5.0%	Feb. 1994	555.00	27.75	5.0%
Mar. 1994	558.00	27.90	5.0%	Apr. 1994	560.00	28.00	5.0%	May 1994	562.00	28.10	5.0%
Jun. 1994	565.00	28.25	5.0%	Jul. 1994	568.00	28.40	5.0%	Aug. 1994	570.00	28.50	5.0%
Sep. 1994	572.00	28.60	5.0%	Oct. 1994	575.00	28.75	5.0%	Nov. 1994	578.00	28.90	5.0%
Dec. 1994	580.00	29.00	5.0%	Jan. 1995	582.00	29.10	5.0%	Feb. 1995	585.00	29.25	5.0%
Mar. 1995	588.00	29.40	5.0%	Apr. 1995	590.00	29.50	5.0%	May 1995	592.00	29.60	5.0%
Jun. 1995	595.00	29.75	5.0%	Jul. 1995	598.00	29.90	5.0%	Aug. 1995	600.00	30.00	5.0%
Sep. 1995	602.00	30.10	5.0%	Oct. 1995	605.00	30.25	5.0%	Nov. 1995	608.00	30.40	5.0%
Dec. 1995	610.00	30.50	5.0%	Jan. 1996	612.00	30.60	5.0%	Feb. 1996	615.00	30.75	5.0%
Mar. 1996	618.00	30.90	5.0%	Apr. 1996	620.00	31.00	5.0%	May 1996	622.00	31.10	5.0%
Jun. 1996	625.00	31.25	5.0%	Jul. 1996	628.00	31.40	5.0%	Aug. 1996	630.00	31.50	5.0%
Sep. 1996	632.00	31.60	5.0%	Oct. 1996	635.00	31.75	5.0%	Nov. 1996	638.00	31.90	5.0%
Dec. 1996	640.00	32.00	5.0%	Jan. 1997	642.00	32.10	5.0%	Feb. 1997	645.00	32.25	5.0%
Mar. 1997	648.00	32.40	5.0%	Apr. 1997	650.00	32.50	5.0%	May 1997	652.00	32.60	5.0%
Jun. 1997	655.00	32.75	5.0%	Jul. 1997	658.00	32.90	5.0%	Aug. 1997	660.00	33.00	5.0%
Sep. 1997	662.00	33.10	5.0%	Oct. 1997	665.00	33.25	5.0%	Nov. 1997	668.00	33.40	5.0%
Dec. 1997	670.00	33.50	5.0%	Jan. 1998	672.00	33.60	5.0%	Feb. 1998	675.00	33.75	5.0%
Mar. 1998	678.00	33.90	5.0%	Apr. 1998	680.00	34.00	5.0%	May 1998	682.00	34.10	5.0%
Jun. 1998	685.00	34.25	5.0%	Jul. 1998	688.00	34.40	5.0%	Aug. 1998	690.00	34.50	5.0%
Sep. 1998	692.00	34.60	5.0%	Oct. 1998	695.00	34.75	5.0%	Nov. 1998	698.00	34.90	5.0%
Dec. 1998	700.00	35.00	5.0%	Jan. 1999	702.00	35.10	5.0%	Feb. 1999	705.00	35.25	5.0%
Mar. 1999	708.00	35.40	5.0%	Apr. 1999	710.00	35.50	5.0%	May 1999	712.00	35.60	5.0%
Jun. 1999	715.00	35.75	5.0%	Jul. 1999	718.00						

Jobless figure 'should be halved'

By William Keegan

A CLAIM that the true level of unemployment in the U.K. this month was only half the 1,087,900 shown by the official figures was made at the week-end by the Centre for Policy Studies, the Conservative research group.

The Centre, whose chairman and founder is Sir Keith Joseph, "shadow" Cabinet member in charge of policy and research, has issued its own version of the figures which are adjusted "in the light of the widely accepted shortcomings" of the official figures.

The main adjustments are the removal of three categories of people from the figures of those who have officially registered—namely "those unsuitable to regular full-time work" (estimated by the Centre at 250,000), "people between jobs" (for which the Centre takes the Department of Employment figure of 246,000 people who have been unemployed for four weeks or less) and "not seeking work" calculated at 50,000.

The Centre then arrives at 541,900 (or 2.1 per cent.) as its estimate of "true unemployment" in July 1975, compared with the 1,087,900 (4.7 per cent.) shock figure published by the Department of Employment last week.

Even on the Centre's own calculations, however, there is no getting away from the alarming deterioration in the unemployment position in the past month. Its "true unemployment" estimate shows an increase of 28 per cent. since June.

The Centre says that its estimate of "unemployables" is based on surveys done by the Department of Employment itself in 1973 and 1974. On the basis of those surveys, it was calculated that 30 per cent. of registered unemployed slipped into the "unsuitable to regular full-time work" category then. It was unrealistic to assume that the proportion of people in this category remained constant when unemployment was rising sharply. "The figures arrived at by this method have been revised downwards."

Unemployment policy "outdated" Page 4

Dividends report this week

Financial Times Reporter

THE FIRST two reports from the Royal Commission on the Distribution of Income and Wealth will be published on Wednesday. One covers the controversial area of dividends and company finance and the other will set out the Commission's first views on the whole field of incomes.

The third report, on top salaries in both the private and public sectors, should be published before the end of the year.

Dividend income was a subject specifically chosen by the Government last year for early report. The idea was that the Chancellor of the Exchequer should use it in response to a challenge in his intended review of dividend control.

In the event, this plan has now been superseded by the policy on income restraint which restores the 10 per cent. limit on dividend increases. The Government has said that the policy of controls will continue after the present legislation runs out next year.

The Commission, headed by Lord Diamond, the former Labour Cabinet Minister, was asked to prepare a report which covered the pattern of ownership of equity capital and of income arising from it, with evidence of the "final distribution of the income to individuals of different income levels."

It was also given a brief to look at the pattern of financing U.K. companies, and in particular the role of dividends in raising capital, together with changes in the total of dividends paid by companies in the U.K. covered by dividend control, and the growth of different kinds of personal income, including dividends.

Continued from Page 1

Ford pledge

and Saturday between President Giscard and Herr Schmidt produced the main result expected—an agreement to co-ordinate their imminent measures for economic stimulus.

Details of both plans have yet to be released. The French Cabinet will discuss its programme on Tuesday, the German Cabinet later in August, and it now seems that the two programmes will be put into operation together at the end of August or at the beginning of September. Both sets of measures will concentrate on public investment.

All the other "snake countries" have been informed of the results of this meeting in the hope that they will act similarly.

Bankers study public sale of Burmah's BP shares

BY MARGARET REID

METHODS for sale to the public of most of Burmah Oil's former 20 1/2 per cent. shareholding in British Petroleum—worth some £400m.—are being studied by London merchant bankers.

No decision has yet been taken by the Cabinet on the ultimate fate of this major holding taken over by the Bank of England for £175m. early this year to generate cash urgently needed by Burmah.

There is a growing conviction in various quarters that, if the ex-Burmah stake in BP were to be added to the 48 per cent. plus interest already held by the British Government, the resultant near-70 per cent. stake would exceed what was desirable.

While the extra shares would scarcely further reinforce the major influence the Government could exert, it would lift the Government holding to what might seem to international observers an excessive level.

On the assumption that, in line with these considerations,

the Government eventually concludes that its own stake in BP should not be increased—and there is little point in the indefinite retention of the holding by the Bank of England—there remains two alternatives, a combination of which may be used.

Undesirable

One would be the sale of a sizeable part or parts of the holding to overseas interests in the oil producing or consuming areas. Both the major oil producing country of Iran and the Deminex group in Germany—where no substantial oil investments are held as yet—have been canvassed as potentially interested buyers.

However, only a limited stake or stakes could in any event be disposed of in this way without conceding an undesirable degree of management influence over BP.

The final and most important possible method for disposal of the large former Burmah holding would thus inevitably be through

an offer for sale of the shares to the public at large.

Even assuming that, say, a quarter of the ex-Burmah shares—some 5 per cent. of BP's equity—were disposed of at first to a big overseas purchaser, the offer for sale of the rest would constitute by far the largest share offering ever made in London.

Assuming that three quarters of the shares in question—some 60m.—were put up for sale in this way, and assuming this was at a discount of around one-fifth from the present BP price, the operation would call for over £240m.

This would be more than double the previous largest equity issue in London, BP's own £123m. rights issue in 1971. And since around half of that was taken up by the British Government as a shareholder, the market was only called on for about 50m. of the very large Commercial Union rights issue last autumn.

Launching a public offer of up to £240m. would therefore be a

major exercise for the City of London. This explains why a number of bankers are energetically reviewing the possibilities of raising such a sum, even though BP has not itself, in advance of any Government decision on the holding's future, commissioned any advice in the matter.

Severe

On the controversial question of who should take the large profit on such a deal, it seems almost certain that this will be the Government. The shares are held in the Issue Department of the Bank and the recent Bank of England report has already disclosed that the profit of some £14m. showing on the shares by the end of February was credited to the Treasury.

There seems little prospect that the realised profit will accrue to the shareholders of Burmah given the context of severe problems which led to the Government's backing for Burmah Oil and the purchase of the BP shares from it.

Soares calls for Government of national salvation

BY JANE BERGEROL

LISBON, July 27.

DR. MARIO SOARES, leader of Portugal's Socialist Party, tonight called on President Costa Gomes to head a "Government of national salvation."

He said: "The Portuguese people are fed up with ideology, political debate and calls to fight this or that battle. What the people want is answers to their problems."

"As a force of the Left and a revolutionary party, we Socialists are polarising discontent not to harm the revolution but to safeguard it and prevent disgruntled people from joining the Right and the extreme Right."

"This was the clearest bid so far by the Socialist Party to draw the President away from Armed Forces Movement Left-wing officers who are trying to split the Socialist leadership from its grass roots support."

Dr. Soares called on the Armed Forces Movement and the democratic political parties "to sit together round the table and plan concrete and realistic policies to save the country and save the revolution."

Socialists are going to present a "plan for action" to President Costa Gomes.

Friday's Armed Forces announcement of a ruling triumvirate of Portugal's three

strongest generals, President Costa Gomes, Prime Minister Vasco Gonçalves, and Copcon security chief Otelo Saraiva de Carvalho, has been condemned by the Popular Democrats while extreme Leftists have said that it solves none of the country's political problems.

The Popular Democrats have condemned it as against the military pact with the parties and unconstitutional.

The impression is that the triumvirate has so far gained the support only of the Communist Party and some Communist MDP-CDE and some of the extreme Left groups.

Cynical

Leading officers of the Supreme Revolutionary Council—now a purely consultative body for the three generals—failed to turn up at Friday's general assembly where the triumvirate was formed, prompting speculation that they may resign from the Council.

An Army captain has already resigned from the others, led by the Armed Forces Movement founding members, Majors Melo Antunes, the Foreign Minister, Vitor Alves, roving ambassador, and Captain Vitor Crespo, the former High Commissioner in

Mozambique, may continue to support the movement if President Costa Gomes makes certain assurances to them.

There are signs that the fight over whether General Vasco Gonçalves should remain Prime Minister is still not over.

Some cynical observers are commenting that much of the President's moderate and critical speech on Friday may have been designed for outside consumption before this week's Helsinki European Security Conference.

But the Press may be embarking on a delicate policy of outwitting Communist party influence through an alliance between moderate, independent Left-wing officers and the extreme Left represented by General Saraiva de Carvalho.

Dr. Mario Soares greeted the President's speech as embodying many of the criticisms made by the Socialist Party over the past few weeks.

General Gonçalves has promised a new Government for this week, presumably before President Costa Gomes leaves for Helsinki on Wednesday. He has only two more days in which to put a cabinet together and many leading independent members of the fourth coalition are still hesitating before accepting their previous posts.

Journalists to ballot on closed shop policy

By John Wyles, Labour Reporter

THE National Union of Journalists will ballot its 28,000 members to decide the union's policy on the controversial questions of the closed shop and the role of newspaper editors.

The decision by a special NUJ conference at the week-end was a victory for moderates who had organised a campaign against the hard-line policy on the closed shop adopted by the union's annual conference in April.

Although they secured the ballot of members they were seeking, moderates lost the vote over the question that will go on the voting papers.

Delegates voted 204 to 180 in favour of the ballot but went on to decide by 198 to 168 that the question the ballot paper should ask was whether NUJ members agreed with the seven-point policy calling for 100 per cent. closed shop adopted by the April annual conference.

This policy directly repudiated a declaration of open shop adopted in March by the NUJ executive, which made it clear that the union would not force editors into membership if closed shops were introduced into the newspaper industry.

Upheavals

NUJ moderates wanted members to be balloted on this declaration but Left-wingers won the day with their argument that if the membership attitude was to be tested then the issue must be the decision taken by their conference representatives in April.

The seven points adopted by the April conference which NUJ members will now vote on are: repudiation of the NUJ executive statement giving editors the freedom of choice on NUJ membership, union policy for 100 per cent. closed shop, no separate membership section of the union for editors, full support for union branches seeking closed shop agreements, not allowing editors to do their normal writing duties while instructing them to take part in "properly authorised" stoppages, work with other media unions for a genuine free Press, and to support freedom of Charter of Press Freedom, agreed with newspaper proprietors.

Saturday's conference also instructed the NUJ executive to call for one-day strikes in provincial newspaper offices in support of nearly 250 journalists sacked by the Birmingham Post and Mail group after going on strike over pay.

Observer still hopeful

By Our Labour Reporter

OBSERVER management will decide to-day its next move to secure union agreement to a 2 per cent. cut in manning levels which the newspaper claims is necessary to remove the threat to its future posed by a projected £750,000 operating loss for the year.

After chapel (office branch) meetings on Saturday, printing union officials are expected to give their replies to-day to management's call for volunteers for redundancy.

The company reminded-houseful last night that there would be further acceptance of voluntary severance in the wake of the meetings, which caused no disruption to Saturday night's production of the newspaper.

There has been strong resistance to the reduction in manning levels among sections of the 700-strong work force, particularly in the machine rooms, which national union officials claim could not function in some areas on the levels proposed.

THE LEX COLUMN

Fodens and the institutions

The relationship between the United States has given new paratively little scope for U.S. institutional investor and industry typically to the question of expansion. EMI, owning try is developing into a major whether British companies Capital, is in a rather different talking point, which is why it should be more eager to seek position, as is Plessey thanks to important to draw the right registration with the Securities its Alloys Unlimited. Unlited clusions from the rescue of Exchange Commission. BP, acquisition a few years back. The problem of accounting procedures will vary from company to company. Much revolves around the question of "materiality" as applied to divergencies between U.K. and U.S. accounting practices, both in profit and balance-sheet terms. The BP registration statement in connection with the recent debenture and Note issues, for instance, included a report by the independent accountants, Whitley Murray to the effect that U.K. as opposed to U.S. accounting principles had not materially affected the determination of net income.

But the accountants had to point out exceptions covered in various notes. These referred to the treatment of back service pension charges in 1973 and 1974, to Iranian receipts in 1970 and 1971, and to the sale of production interests in 1974.

Real difficulties arise when reported U.K. earnings might consistently diverge on a scale sufficient to affect the "materiality" criterion and where notes would have required registration involving "inordinate expenditure and delay, heavy expense and accounting problems."

The obvious question is why problems which appeared insuperable for Rank have not always deterred other British companies, though given the somewhat scanty list of U.K. registrations—it also includes Plessey, Shell and shortly Consolidated Gold Fields—it looks as though Rank's objections are fairly widely held.

Clearly, a company needs to have a pretty strong motive to submit itself to the registration procedure. Tipping the U.S. capital market is the main attraction, but this is an opportunity strictly limited to U.K.-based multinationals. Other- wise, only companies with substantial U.S. operations—or ambitions—are likely to be seriously concerned.

Interestingly, Rank is a company which has a large body of American shareholders but very little in the way of direct U.S. operations. And the terms of its relationship with Xerox Corporation leave it with com-

dates for registration.

Disclosure

Such accounting problems may be more difficult to resolve than those of disclosure—at any rate for large groups—although new information may well be required by the SEC. The EMI document, for instance, includes detailed figures of research and development expenditure, and analysts are becoming used to U.S. statements. There are, of course, other ways into the U.S. which do not involve coming under the eagle eye of the SEC—as Hanson Trust, for one, has shown. But the lure of a huge bond market could yet produce some more U.K. candi-

U.S. listing

The wave of funding operations both here and in the

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